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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

CXXVIII.—No. 4277. JANUARY 23, 1925.

STUDENTS' DRAWINGS

THE precise value of competitions in design by architectural students has perhaps not been very accurately apprehended, but the continuance of them during a period of many years past by the Royal Institute of British Architects shows that they are believed to have some real and definite value, though there has recently arisen a suspicion that the results are not all that have been hoped, and that students themselves have been less concerned to enter them. This year the response for the Tite prize has been so large and some dozen of the designs are so good that the examiners will probably feel more hopeful and the emulation of students receive a fresh stimulus.

Those who are more concerned for the final benefit to the profession than the creation of mere spasmodic cleverness or the glorification of any particular school may fairly criticise the competition system and its methods. There are many ways of looking at competitions, and there may be some truth in the comparison between the games of cricket and golf as showing that the latter is a much more selfish game than the former, and produces a very unpleasant form of egotism, and we assuredly get the best results for the profession of architecture by competitions amongst students which ventilate problems of design for a number of students rather than simply to stir up a few isolated efforts of personal ambition. The pleasant feature of this year's Tite competition is that it shows about a dozen competitors producing really praiseworthy designs, and if the stimulus of competition is responsible for this we cannot look altogether askance on the system. On more than one occasion we have felt that the prizes have gone to those who more or less perfunctorily fulfilled the conditions when they might more wisely have gone to those whose imagination and realisation of the higher qualities of building entitled them to recognition. Those who visit the exhibition of the students' work this year will be able to judge for themselves how far they consider a comparison of this kind would hold good as between the prize and other designs, but they can hardly fail to note that some at least of the unplaced designs have considerable merit in proportion, mass, and detail. It is indeed quite pleasant to see how the dignified simplicity of the best Italian Renaissance work has influenced some of the competitors. There are some very well executed drawings amongst the collection of over one hundred sheets sent in for the Tite prize, and though there is a plentiful use of spray and stipple there is a good deal of clean, good drawing. Why students are not encouraged to think in the round we do not know, for to realise what a building is going to look like in perspective is very essential to a true apprehension of the design. The design placed first does not lose so much as some others, but the design placed second cannot be fairly estimated from its principal elevation. In such a subject as this the whole mass and grouping ought to be carefully conceived and corrected in perspective. It is just in this consideration that the sculptor's criticism of architectural design is so pertinent, and architects themselves are agreed that modelling and mass are as important to the architect as to the sculptor.

The prize designs will receive their appraisement in due course, but it is a good thing when the bestowal of awards leaves something to be said for the unsuccessful designs, such as those by "Snark," "Fish," "Plot," "Penates," "Fuit Ilium," "Capri," "Frog," "Pecksniff," and "Key," in the Tite competition. These do not exhaust the whole of the meritorious work, but they represent a higher level of accomplishment and in a larger number than we can remember in these competitions. Such a result could hardly have come about unless the students were keen and alive to the fundamentals of good design.

We are glad to see some admirable work sent in this year for the Pugin competition. The Grissell also has called forth a good result, whilst the Owen Jones prize has not elicited as much good work as it should. The measured drawings are very good, and we are glad to see it.

Whilst a good standard of finish appears to be generally arrived at, we are glad to note that there is less of senseless elaboration, such as shaded plans, which merely tends to obscure the design, and the needless labour which has so often marked the show drawings in France and America appears to be giving way in our schools to sensible clear definition; a little roughness of execution matters nothing if the feeling and spirit are present. In one of the drawings may be seen a good quality of decorative feeling throughout, but this good quality is misplaced because it is not easy to separate the building from its landscape surroundings; this sort of thing is not sound, sensible architectural illustration. We see much cause for satisfaction in the quality of drawings which from time to time are found in these students' competitions, and we hope the better tendency of their style and finish which has been recently shown will be encouraged. The drawings made for these competitions should give definite clear expression of the subject as a first condition, and whilst they need not exclude graceful and refined treatment, they should be clear of all needless theatrical display and trickery, which only tends to obscure the vital quality of good design.

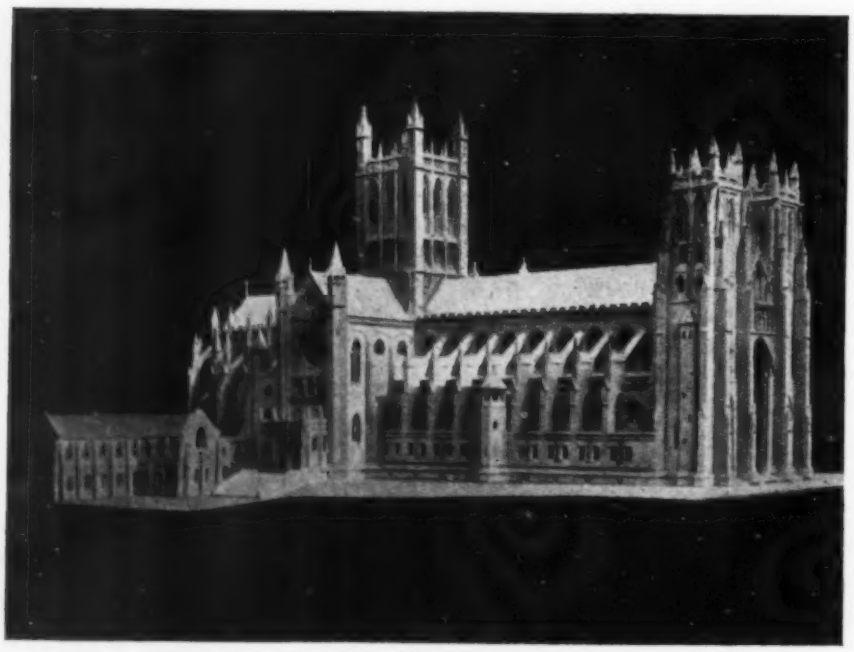
Every generation has in its thoughts the possibilities which lie in wait for the future, and this anticipation is obviously of great import and difficulty as regards the development of professional work. The architectural profession has to fulfil such a variety of functions in these modern times that it may be made to include most phases of human activity. A highly cultured man may be of value in many callings, but the equipment for the career of an architect should include a knowledge of nearly every known form of culture—history, archæology, sociology, religion, engineering, electricity, chemistry, geology, &c., all of which does not make the study of good drawing unimportant. Just as the ability to speak or write clearly and agreeably our thoughts, wishes, opinions, instructions or desires is a valuable gift, so the architect cannot afford to neglect the study of clear and interesting presentment of his designs, and the Institute competitions are largely beneficial as an educational factor if they encourage expressive and beautiful drawing. There is no reason why a drawing which clearly and truthfully expresses a design should not be a thing of beauty in itself, but the object for which a drawing is made must not, of course, be lost sight of in the effort after mere beauty of drawing. There are many pitfalls and dangers in life, but some could be avoided by achieving a sense of relative values. The wise student will make his drawings as good as he can, and will not be afraid of effort to make them beautiful, but he will not therefore think of this in the main except as means to an end. We should not have to champion the cause of good drawing nor yet have to decry it. In its place it is not only necessary, but may be an added joy to our lives.

NOTES.

Thames Bridges. THE important point urged by the deputation introduced by Lord Crawford to the committee appointed to deal with Thames Bridges by the London County Council was the necessity for considering a comprehensive scheme for the future development of the Metropolis. Of course, this applies with special emphasis to the south side of the river, which, with its derelict mud banks, is something of a disgrace to the greatest city in the world. The London Society, the R.I.B.A., the Town-Planning Institute and the Architecture Club were all represented by the deputation, and it is to be hoped that what it urged on the committee's attention will induce that body to take a wide and statesmanlike view of the great problem of which the Thames bridges form only a part. The help suggested in the preparation of a plan would, we believe, do a good deal to strengthen the committee's hands in the presentation of their report. That the deputation was wholly opposed to the St. Paul's Bridge scheme and urgent as to a Charing Cross Bridge, should surprise no one. What has been urged in regard to St. Paul's Cathedral applies with some force to the City and County of London. They are greater and more vital than any other church or town and are, in fact, essentially national in character. The London County Council with its wonderful record, has not supreme power; the City Corporation has a host of responsibilities and historical associations which it can only fulfil and remember with considerable limitations, whilst the Crown authorities have powers which limit all other action.

The Troubles of the Building Trade. IN the current issue of the R.I.B.A. *Journal* Mr. Maurice Webb, D.S.O., makes some pertinent observations on some of the troubles in the building trade, particularly in reference to the relations between the employers and the operatives. The whole trouble now, he says, seems to be a wrong spirit between masters and men, "fostered on one side by the ca'-canny methods of the men, and stupid restrictive rules of the trade unions, and on the other by the brutal system of employment by the hour, which the employers insist on adopting—entirely alien to that of the old master builders." We may well agree with the spirit, if not the letter, of this criticism, and we wonder why we cannot "devise some system whereby a craftsman can secure a reasonable continuity of employment," and the operatives give up their ca'-canny methods. Mr. Webb believes the one will follow the other if the employers will solve the difficulty involved in the absence of continuity of employment. The question is a difficult one; it needs to be considered on practical grounds and sympathetically. The R.I.B.A., as a third party vitally interested, might do worse than take the matter up with the other two parties.

Building Trade "Monopoly" THIS is the title of an interesting letter by Sir G. McCrae which appears in Wednesday's *Times*, in which the writer refers to the "action of the operatives in the building trades in endeavouring to stop the construction of the 'Weir' houses." He says that he has inspected these houses, and it is a ridiculous proposition to claim that unskilled men who can build these houses are not to be permitted to work unless they are paid the same rate of wages as obtains in the highly-paid building trades. He concludes:—"The solution of the housing shortage is within our reach. If the building trade situation is handled with courage; if our working men outside the building trades will say what many of them are thinking and saying in private; if the Government—who, after all, are paying a considerable contribution to the cost of house building—will demand that all forms of new construction shall be allowed to proceed at rates of wages suitable to the class of work being performed, then I foresee, if not a full solution, an immediate amelioration of surprising magnitude of our housing troubles." But much depends on an "if"!



Model of Washington Cathedral. (*See p.* 139.)

Made by MR. JOHN EVANS.

The Wren Society Volume. THE Wren Society has done well in issuing its first volume now that interest is so widely concentrated on St. Paul's Cathedral. The volume before us gives a number of illustrations from the All Souls' Collection at Oxford which illustrate the development of St. Paul's. In setting itself the task of elucidating much that is still obscure in the life of Sir Christopher Wren and publishing original drawings and documents of proved authenticity, the Wren Society aims at providing historical students and others with a valuable and trustworthy record of the life of Sir Christopher Wren. The South Elevation on Plate XIX suggests how much greater dignity that design shows in the dome than the existing church. Instead of the peristyle there are outstanding pairs of columns with curved attachments above for the drum of the dome. The design is more like in feeling to the great Roman dome of St. Peter's. The addition of consoles to the main corner of the church in the executed work would be favoured by many.

Penmaenmawr Mountain. WHOEVER knows and appreciates the beauties of North Wales will hear with concern of the destruction of the fine mass of the Penmaenmawr hill which is coming about by the inroads of stone-quarrying. If by any means the danger to this fine headland can be obviated all lovers of our country beauties will be rejoiced. Either by finding a new location for the quarrying or by some other form of compensation the danger to this beautiful piece of natural scenery should be avoided.

Medallic Art. THE disappearance of the craftsman who used to engrave on the matrix himself, and who therefore directed the technical execution of his work, has led to a separation deteriorating to the art of the medallist. In order to re-instate what was once such a beautiful form of artistic representation, it is suggested that the artist should become again more

The Jordan Font, Washington Cathedral.

familiar with the work of transferring his design to the metal, and the Royal Mint is at the present time directing special attention to the raising of medal work to a higher standard. From the sculptor's point of view the reducing machine is not thought the best means through which to achieve it, and the difficulty is not to be overcome in this way. It is pointed out, in a recent account in the *Times*, that "Either the old art of the engraver had to be revived, or means had to be found to bring the outside sculptor into close technical relationship with the work of transferring the design to the metal." Transferring it by the reducing machine and by the engraver's hand are different things, and we cannot have it both ways. The hand of the engraver gives what the brain and heart can give; the reducing machine what the machine provides; and unless we will pay the cost of beauty—which is but to do things in the right spirit and way—no advisory committee of experts, or pious aspirations for the improvement of art will avail us much. For improvement in design only is not enough. The interpretation of the design into metal, through the craftsman's knowledge of the material, is also necessary, and the reducing machine is no alternative to this very primary requirement.

A Middle Course Difficult.

IT is very difficult to say where the line is to be drawn when considering methods as they affect art and industry. Out of so many different courses, a direct way to improvement is not in present circumstances easily found. The recognition by the authorities of the Mint, for instance, of the deterioration of medallic art has naturally suggested to them to look for remedies, and it is still more natural to our countrymen to find a refuge in expert committees of advice. But the idea of employing artists will not produce the right kind of artists, nor will expert advice improve the standard of craftsmanship unless we also recognise the inexorable laws governing the production of a work of art. Design grows out of craftsmanship and knowledge of material, and they are incorporate in each other.

Washington Cathedral.

IN our issue of the 9th inst. we gave some illustrations of the Cathedral which is being erected in Washington, and stated that the architects are Messrs. Frohman, Robb & Little, of Boston. Our attention having been drawn to the fact that the design for the building by the late G. F. Bodley was accepted in 1907, it will be of interest to state the course of events from that date. According to the Washington Cathedral Guide Book, Dr. George F. Bodley, of London, and Mr. Henry Vaughan, of Boston, a pupil of Dr. Bodley, were chosen to be the architects, and their plan for the Cathedral was accepted in 1907. "Not long after the preliminary designs were drawn Dr. Bodley died and Mr. Vaughan continued the work alone, completing the plans, including models, of the exterior and interior, . . . until his death in 1917. His body was laid to rest in the crypt which he had designed." The present architects are Messrs. Frohman, Robb & Little, of Boston, with Messrs. Cram & Ferguson, also of Boston, as consulting architects. We give this week an illustration of a model of the Cathedral made by Mr. John Evans, of Boston, and also the Jordan font, which has been constructed of white Carrara marble. According to the Guide Book the Canterbury Ambon was made from stones of Canterbury Cathedral and sculptured under the direction of Mr. W. D. Caröe, the resident architect of that Cathedral. It was presented by the Archbishop and the Dean and Chapter of Canterbury.

The Canterbury Ambon, Washington Cathedral.
MR. W. D. CARÖE, F.R.I.B.A., Architect.

GENERAL NEWS

Professional Announcements.

Mr. Ernest Bower, M.S.A., has commenced practise at Jovil, Linthwaite, Huddersfield.

Messrs. Bare, Leaning & Bare, chartered quantity surveyors, of 115, High Holborn, W.C.1, have now taken Mr. Henry Joseph Rayner into partnership. The firm will continue to practise under its old title.

Mr. F. E. G. Badger, Lic.R.I.B.A., the late Director of Housing to the Liverpool Corporation, whose health is now practically restored after twelve months' rest, has taken an office in Cunard Building, Liverpool, for consultations.

As from January 1, Mr. F. W. Skipper, 55, London-street, Norwich, has taken into partnership in his practice of architect and surveyor his son, Mr. Eric H. Skipper, A.R.I.B.A. The style of the firm will be Messrs. Fredk. W. Skipper & Son, and the practice will continue to be carried on at the above address.

Concrete Prize Offer.

The British Portland Cement Association has offered to place at the disposal of the Ministry of Health any reasonable sum of money to constitute a prize fund for the discovery of a system which will enable concrete houses to be economically erected by unskilled labour.

L.C.C. Motto.

The London County Council, at a recent meeting carried an amendment, moved by Lieut.-Colonel Levita, adopting the word "London" as the motto of the Council. The General Purposes Committee reported that since 1913 they had considered over 1,200 suggestions.

Religion and Architecture.

In his second lecture on English Mediæval Architecture at the Central School of Arts and Crafts, Sir Banister Fletcher, F.R.I.B.A., outlined the development of the planning of churches and cathedrals. The plans of cathedrals were elaborated by reason of ritual exigencies, such as the necessity of providing pilgrims' paths to holy relics in shrines, like that of Thomas à Becket in Canterbury Cathedral and Edward the Confessor in Westminster Abbey. Veneration of the Blessed Virgin required Lady Chapels, and Masses for the dead led to the endowment of chantry chapels by noble families where departed members were perpetually honoured. Thus the Gothic period of the thirteenth, fourteenth, and fifteenth centuries was marked, in spite of unsettled conditions, by religious enthusiasm shown in the zeal of crusaders or the patient tramp of pilgrims.

Sir Banister also dealt with the scientific growth of vaulting, or arched stone ceilings, which began with the Roman solid barrel and cross vaults and became the rib and panel type of Gothic architecture, the ribs gradually increasing for the support of the intervening web till fan and pendant vaults were invented in the fifteenth century. These caused outward pressure, like the dome of St. Paul's, and had to be counteracted by buttresses and flying buttresses which Sir Banister described.

The R.I.B.A.

We take the following notes from the Minutes of the Council Meeting held on January 5:

ARCHITECTURAL EDUCATION.—On the recommendation of the Board of Architectural Education:—

(*a*) The Report of the prizes conference was approved, and the Board was authorised to take the necessary steps for carrying into effect the scheme for co-ordinating the prizes and studentships.

(*b*) A revised scheme for the R.I.B.A. (Archibald Dawnay) Scholarships was approved.

(*c*) The report of the R.I.B.A. Visiting Board on the School of Architecture of the Architectural Association was approved.

(*d*) The Ashpitel Prize for 1924 was awarded to Mr. G. R. Barnsley.

(*e*) The mark of distinction for a Thesis was awarded to Mr. H. R. Steele.

(*f*) Revised regulations for the conduct of the Examination for the Diploma in Town-planning were approved.

COMPETITION NEWS

New Offices, Nairobi.

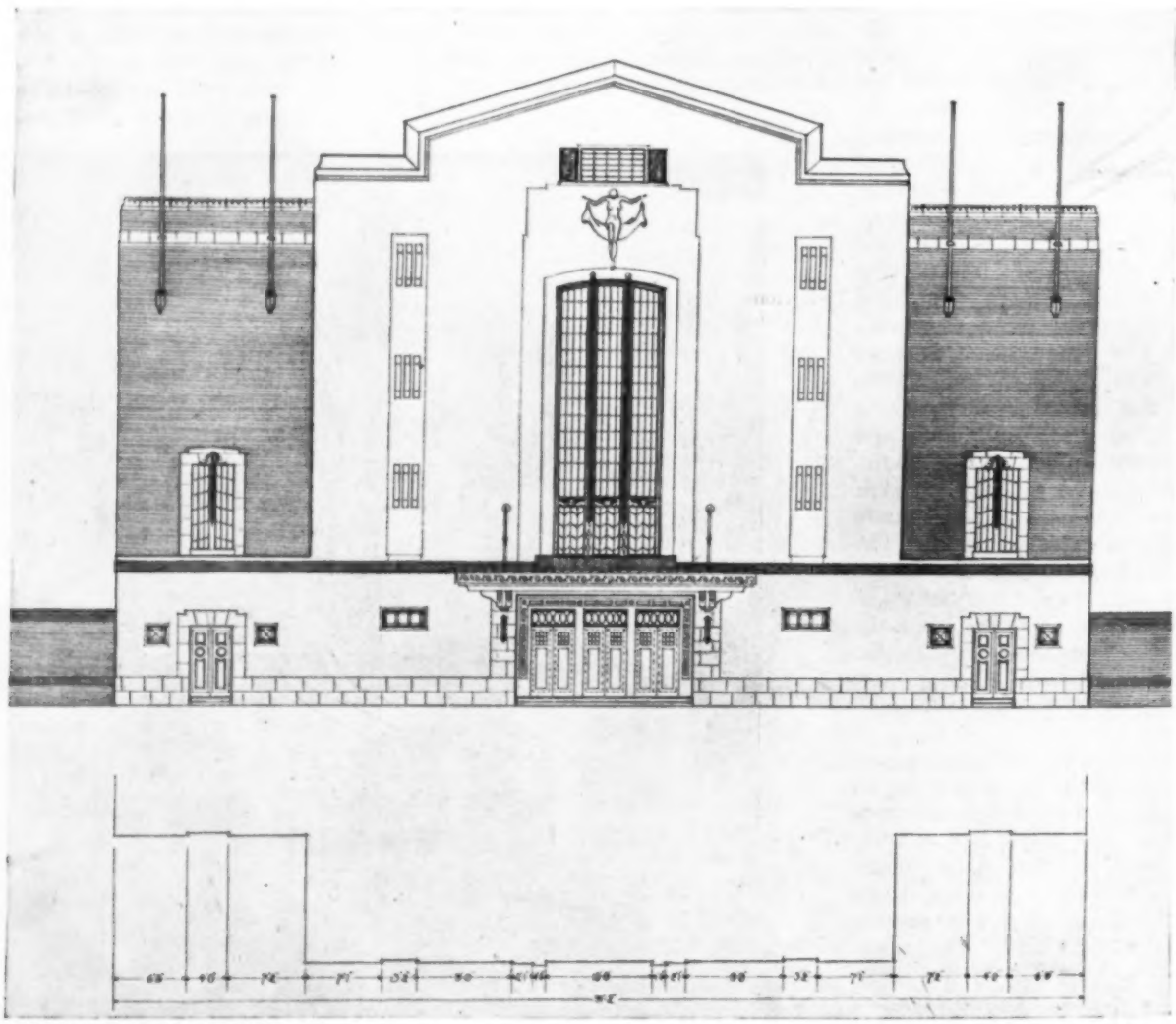
Designs are invited for new railway offices to be erected in Nairobi, Kenya Colony. Premiums of £200 and £100 are offered respectively. Conditions, on the payment of one guinea, from the Crown Agents for the Colonies, Millbank. Sending-in day at the offices of the railway, Nairobi, extended to March 28, 1925. (See our issue for November 7.)

The Constantine Technical College.

Architects are invited to submit designs in this competition. Mr. Percy Thomas, F.R.I.B.A., has been appointed assessor. Sending-in day, May 15, 1925. (See our issue for December 19, 1924.)

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Masonic Hall (May 1). Manchester Art Gallery (Feb. 28; Aug. 22). Industrial Designs (June 25; Dec. 26). Valetta Lay-out (June 30; Jan. 2). Argentine Institute (Dec. 31; Jan. 2). Leeds Library (Feb. 16; Dec. 19).



R.I.B.A. Prizes and Studentships.

Design for a Dance Hall. BY MR. A. E. CAMERON. [Awarded Grissell Gold Medal and £50.]

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Penmaenmawr Mountain, North Wales.

SIR,—The summit (some hundreds of feet in height) of this mountain is in course of rapid removal. Yet it is not too late to preserve its historic grandeur, the subject of many delightful songs and ballads, a conspicuous object from Llandudno and its neighbourhood, from Conway Mountain, from Llanfairfechan and Aber, from Bangor, Beaumaris and the hinterland of the Isle of Anglesey. Compensation ought to be provided for all who would be injured by the abandonment of this portion of the Penmaenmawr stone quarries; compensation on a generous scale so that they would willingly come into a scheme for the preservation of the summit.

The parties to be compensated are :—(1) The quarrymen; (2) the Penmaenmawr Urban District Council (loss of rates); (3) the quarry owners; (4) maybe some others.

A perhaps possible alternative to all cash compensation might be the creation of a Penmaenmawr detached, where a similar stone could be found and quarried by the Penmaenmawr quarry owners, the men meanwhile working at the present quarry where least injury is being done; thus the rateable value of Penmaenmawr would be maintained.

The writer is prepared to receive communication from all who are of opinion that the mountain should not be destroyed, with a view to the formation of an influential *ad hoc* committee determined at all costs to achieve its preservation and to satisfy the reasonable claims of all injured parties.

A. HENTHORN STOTT.

60, Howarth's Buildings,
5, Cross-street, Manchester.

Revision of London Steel Frame Act.

SIR,—I should like to make one or two comments on Mr. Andrew's instructive article in your issue of the 9th inst., on the subject of "The Revision of the London Steel Frame Act." Mr. Andrews urges increased stresses in pillars. I would prefer to increase the stresses in beams rather than pillars for the reason that beams usually give warning by bending before failure takes place, while pillars are more likely to collapse without such warning,

In the revised regulations I would welcome a provision conferring greater liberty of design on the architect or engineer within limitations to be explained in the regulations, which will also naturally place greater responsibility upon him.

As a corollary, I would suggest that the architect or engineer should furnish a certificate stating that he has designed and supervised the work, and that by test and inspection he has verified that the materials and workmanship are of the high grade necessary for reliable work. By this method the responsibility for proper work would be definitely allocated, and much greater stresses might be permitted where good workmanship and reliable materials are assured.

It is readily accepted that the L.C.C. Steel Frames Act has greatly helped to improve practice in steel construction. The Act, however, although requiring very low pillar stresses has failed to secure safer construction through omitting more definite requirements in detail design.

Why not invite the Institution of Structural Engineers to draw up recommendations for revised by-laws?

S. BYLANDER.

St. Paul's Cathedral.

SIR,—The illuminating article by Mr. William Harvey on St. Paul's Cathedral in your last issue suggests the removal of part of the weight from Mr. Harvey's points "A" (on his plan) by means of eight to sixteen-sided steel framing, the 16 struts taking portions of the weight of the inner drum and putting them on 16 points ("B") on the plan herewith.

A. HENTHORN STOTT.

Manchester.

"Structural Design in Steel Frame Buildings."

SIR,—In your issue of 9th inst. your reviewer devotes nearly the whole of a long notice of the above book to an attempt to prove that in giving a simple graphical solution of the problem of beams of varying section deflecting under irregular loading, and especially in stating it to be a problem which "practically all text books ignore," I am deliberately ignoring other writers who have dealt with or mentioned the problem, and that my "claim for originality" is therefore unfounded.

He omits, however, to state in this connection that the claim for originality is made only in respect of the graphical solution given for irregularly loaded beams of varying section (which graphical solution I still believe to be novel), and that on the page following his quotation I carefully drew the readers' attention to the two authorities, Prof. Goodman and Prof. Cottrell, to whom I had been indebted for the basic principle of that graphical solution, quoting the names, editions, and even the pages upon which they deal with it. The date given, 1892, is 32 years ago, or five years before even the earliest authority quoted by your reviewer.

He also criticises adversely a statement in Chapter I that the application of Prof. Clerk Maxwell's principles to the problem of the joints between wall stanchions and floor beams is "believed to be novel," on the ground that other writers have dealt with the same subject, and particularly because Prof. Lamb published a few months ago a summary of developments along similar lines.

It would, I suggest, have been fairer to have mentioned the fact, clearly stated in the preface, that the material now published for the first time in book form originally appeared in the form of articles in a stated technical journal, from the publishers of which your reviewer could easily have ascertained that they were written and published over ten years ago.

I regret to intrude on your space, but your reviewer's insinuation that I am claiming other men's work is so very thinly veiled that I must really ask you to give equal publicity to the obvious reply.

The practice of reviewers signing criticisms of technical books, invariably adopted, I believe, in the R.I.B.A. JOURNAL has much to commend it.

PERCY WALDRAM.

***We willingly publish Mr. Waldram's letter, but he is in error when he says we suggested he deliberately ignored other writers, and that we insinuated he is claiming other men's work. No statement or suggestion of the kind was made, but we pointed out that in his preface and on p. 58 the claim in substance is made that the primary object aimed at in the book is to give examples of problems not dealt with in ordinary textbooks. We quoted some well-known textbooks to show that the various problems selected by the author have been dealt with already, and the inference appears to be either that Mr. Waldram did not know of the existence of these solutions, or that he did not appreciate their similarity to his own results.—ED.

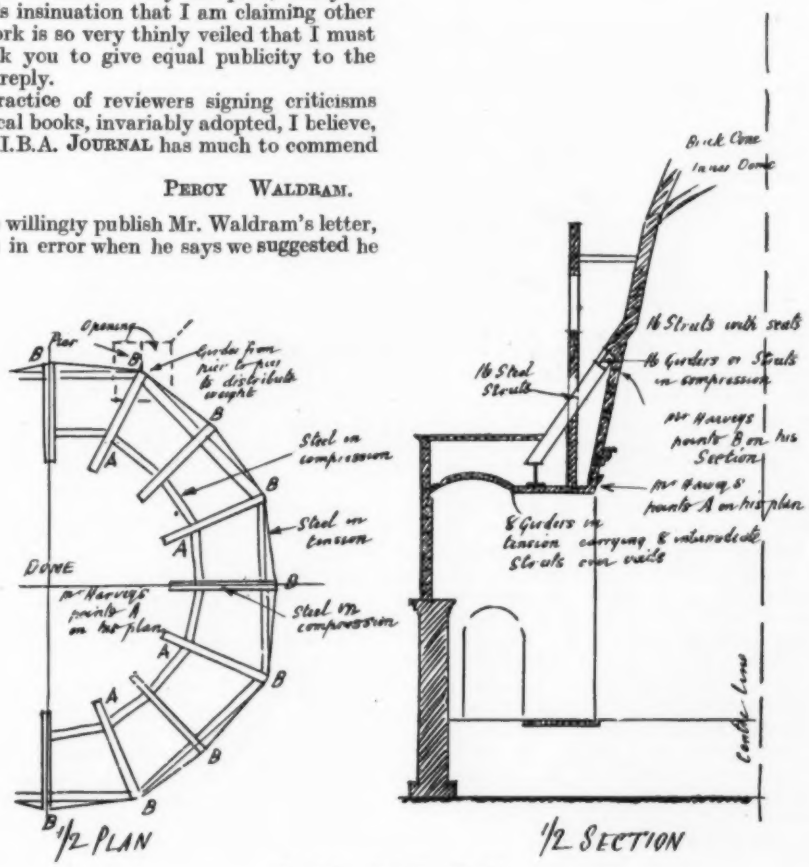
Plumbers and Apprenticeship.

SIR,—My attention has been drawn to a paragraph in your issue of *The Builder* for December 5, 1924, under the heading, "Plumbers and Housing," and I desire to say, on behalf of this Association, that we have been always most anxious to have the apprenticeship councils set a-going, and have always been in favour of the adoption of the apprenticeship scheme as a whole, which was drafted in the interests of the plumbing craft.

Needless to say, there were difficulties which had arisen in the early stages of the movement for the setting up of the apprenticeship councils, but latterly these were minimised to an appreciable extent, so much so that a meeting was arranged to deal with these matters, but this meeting had to be postponed owing to the internal reorganisation of the Master Plumbers' organisation. This postponement has evidently caused your informant anxiety, owing to a misconception of the cause of the postponement, and I hasten to assure you that at an early date, with the co-operation of the master plumbers, the apprenticeship councils will be in full swing, and we are hoping that the training of the apprentice plumbers will not in any way be jeopardised by the unfortunate delay to which you refer in your article.

LACHLAN MACDONALD,

General Secretary United Operative Plumbers' and Domestic Engineers' Assoc. of Great Britain and Ireland.



(See letter by Mr. Stott.)

THE GREEKS—AND AFTER!—II

By REGINALD HALLWARD.

It is a good thing to get away sometimes to the far and unfamiliar and revise our conclusions, which tend to rust from reiteration; to become doctrinal and detached from life. And so it is in regard to the Greek tradition, which has led us to gaze too insistently on a particular time and locality for the sources of art. It is therefore advantageous to look farther afield and outside of old habits and thoughts. In this Shrine of Boro-Budur we have the means of revising our estimates, because here, untouched by Greek influence, we find, none the less, art in its noblest expression. On the subject of the classical tradition we have settled matters to the point of stagnancy, and have become satisfied with a mere reiteration which gets credit for thought. Our scholarship is now more indebted to what has been accepted, and ought to be said, than for any new light introduced into it. From this turgid condition it is desirable we should free ourselves, in order to see Greek art not as something we ignorantly worship, but in truer relation to other manifestations which, under purer conceptions of life, have surpassed it. The Greek tradition does not enclose all that can be known, so that we can shut down what grows outside of it as mere "vexation of spirit." On the contrary, if accepted as final, it would cut us off from much that it is most necessary now to understand.

There is, however, a special difficulty in the way of doing justice to sources of art which emerge as independent of Greek influence, and which do not fit in with received opinion, and especially when coming from the East—owing, perhaps, to our regarding these races in the light of "subject" peoples. But how can we speak of "subject" races when we see the same intimate beauty emerging wherever and whenever mankind has related itself to the best? The art of Boro-Budur expresses not only its own race and civilisation, but what lies at the heart of all races and all civilisations. The tragedy lies in the briefness of the moments in the world's history when this has been maintained. Even in the perhaps "fabled" Atlantis, as Plato tells us, while the people were gentle—and gentleness and kindness is the prevailing atmosphere of the Shrine sculptures—and obedient to the laws, and wise in their intercourse with one another, and were not attracted by wealth, they were undisturbed, but becoming degenerate!—When I look at these sculptures of Boro-Budur I feel that I know the people. These sculptures are the people, and I can love them as I love all that inspires belief in mankind, that interprets life in its noblest and purest expression. How manifold and far-reaching has been the influence of the East on European art we may partly realise, but we do not realise that as religion came from the East so art has come from there also. I can only here touch on instances, but we get the inevitable connection of the East in the case of Dante, for the Divina Comedia is now known to have come through Mohammedan sources from an earlier Persian play. The Moors did not originate a culture in Spain, but based it on the earlier traditions of Persia, India and the East. In the temple of Baal-Bek we have a remarkable instance of the contact of Græco-Roman and Eastern art mingling in much of its detail. This is particularly interesting as illustrating that merging of East and West which is so fundamental to the completion of art, endowing its strength with sweetness, adding a perfume and tenderness and illuminating its austerity with a smile. It may be said that the Shrine of Boro-Budur is decorative rather than structural. In any proper sense of the terms they cannot be separated. It is as though one should divide the body from the soul, and this Shrine answers all the proper requirements of both, as its completeness demonstrates. Nor have I any doubt but that, if their objects had made it necessary, a people so enlightened could have raised any structure required by their needs. This is no more than to say that, given an object noble enough, humanity can always find the way to its attainment. The superb temple of Anghor exhibits in its forms scientific construction equal to any time. It is important to realise this integral relation between the decorative and structural as seen at Boro-Budur, because it is so much misunderstood to-day. Lacking any corporate strength in our approach of building through the failure of craftsmanship on one side which entails the failure of architecture on the other, we approach ornament as so much scenic effect to be added to engineering. It is, therefore, not remarkable that we should regard the ornamentation of the bridge over Ludgate Hill as an enormity.

The Shrine of Boro-Budur suggests something of much importance for us at a time when the knowledge of Eastern peoples is so much discounted by racial and political misunderstanding. If art comes out of life whether Eastern or Occidental, and can appear in Java on an intrinsically parallel interpretation of life with that of the twelfth or thirteenth centuries in Europe, and differing only in externals, how can we claim for one race what cannot equally be advanced for any other, or justify ourselves in assuming something sacrosanct in the Greek tradition? So we see that the course of civilisation does not answer to our comfortable ideas of progress, in which we see something inevitable and continuous, but rather that as the volcano appears where the crust of the earth is thinnest, so where life is least overlaid with materialism is the soul of a people set free to beauty. As the Greek civilisation held a religious interpretation of life less pure than that guiding the civilisation of the ninth century in the East, its art is in certain ways less important to us, while the Buddhist art at this period is more comparable, in the unsullied purity of its expression, to the spiritual advance which raises mediæval art above the classical, because it gave to its interpretation of life a more ennobling significance. But while writing this, I almost want to unsay it again, lest it should seem to convey any lack of reverence for Greek art. It is, however, necessary to interpret art in the light of present knowledge, which compels us to extend our conceptions to include phenomena which reveal the Greek tradition as one only among other manifestations as important as itself, and that therefore the classical tradition is only one among other obsolete conceptions that has to be given up.

Greek art is complete through its very incompleteness. Its limitations enabled it to be so. The Greek's was an intellectual and exalted art at its best and there is an austere grandeur in its pursuit of pure form, though its heart was little touched by it. It realised through the natural, extraordinarily untouched by the sensuous, a very pure intellectualism. More physical than spiritual in its ideals it became the exalted expression of the religious interpretations to which Greek civilisation reached. It was this singleness of aim which gave it so much of its power. I do not think Schiller right in contrasting what he calls the incompleteness of mediæval art with the completion of the Greek. The vision of the former embracing more than the Greek, it added the further lustre of enlarged spiritual conceptions and surpassed Greek art in so doing; nor, at its best, was the form less perfect because it built upon it something higher. Could we imagine at one and the same time the assimilation of Buddhist or Christian art with Greek, this mingling of East and West, of strength and purity with light and sweetness, would have attained for art its so far conceivable zenith. And it may be added that it was from the eighth or ninth century to the thirteenth, when the Eastern influence over European art was greatest, that it adorned the world with its most glorious robe.

I have taken this Shrine of Boro-Budur as the instance, and the challenge to the Western way of regarding the East, and the assumptions of the classical tradition. No age can live for another, no time can claim to be the cradle or the arbiter of art, since the sources of beauty are not to be traced through any local interpretation such as that hitherto governing us, but through the wider and wiser understanding of the common derivation of all inspiration. Seen through art, which interprets life in this simpler way, we are freed from partial miscoloured and political alternatives, which are inadequate to interpret either art or mankind. In so doing we shall enlarge the field of our vision to include the East, as needed by us, because it presents to us the fuller interpretation of ourselves as well, the truth being that there is no more a chosen tradition, such as the Greek, than a chosen race. Stretching over the whole wide circumference of the world lies the everlasting inspiration of beauty—not here or there. As archæology opens up to us and expands the derivations of religion by earlier records, so have we to find the like expansion in our thoughts about art—in all essential ways a language one and the same, though coming through different peoples, and clothed with external differences of time and manner.

If we find art to come out of life, we shall recognise that reconciliation with the East will come, in our adding to our material ascendency the wisdom of a spiritual understanding, which politics cannot discover. Seen through art, that is all so simple which seen under politics is so misinformed, insular and discoloured. In order to understand the world now we must see it through beauty. The industrialism of Europe, spreading its infection through the East, is as though we set out to destroy the very means of our own regeneration. For as religion comes from the East, so are the roots of art to be found there also. What, then, can again liberate in a people that freedom to beauty which the tyranny of Western materialism has almost destroyed? The answer is importunate—not to be denied. There must be an object great enough again to inspire it. It may—nay, it must—express itself in new forms fitting the conceptions of to-day, and for us it is the realisation of democracy, that projected illumination of life, so far in advance of any meaning we can yet attribute to it. We shall not kindle to the inspiration of the old gods of the Greeks, or of the theologies we have forgotten or outgrown. They have had their glory which has passed. Shaped out of our own lives, I see something greater yet, for time has taught men to be kinder than the gods, and it is towards this conception that the idea of democracy is shaping us to-day. For the idea of democracy is like that Chinese lute which, it is said, none can play on but the virtuous and pure in heart.

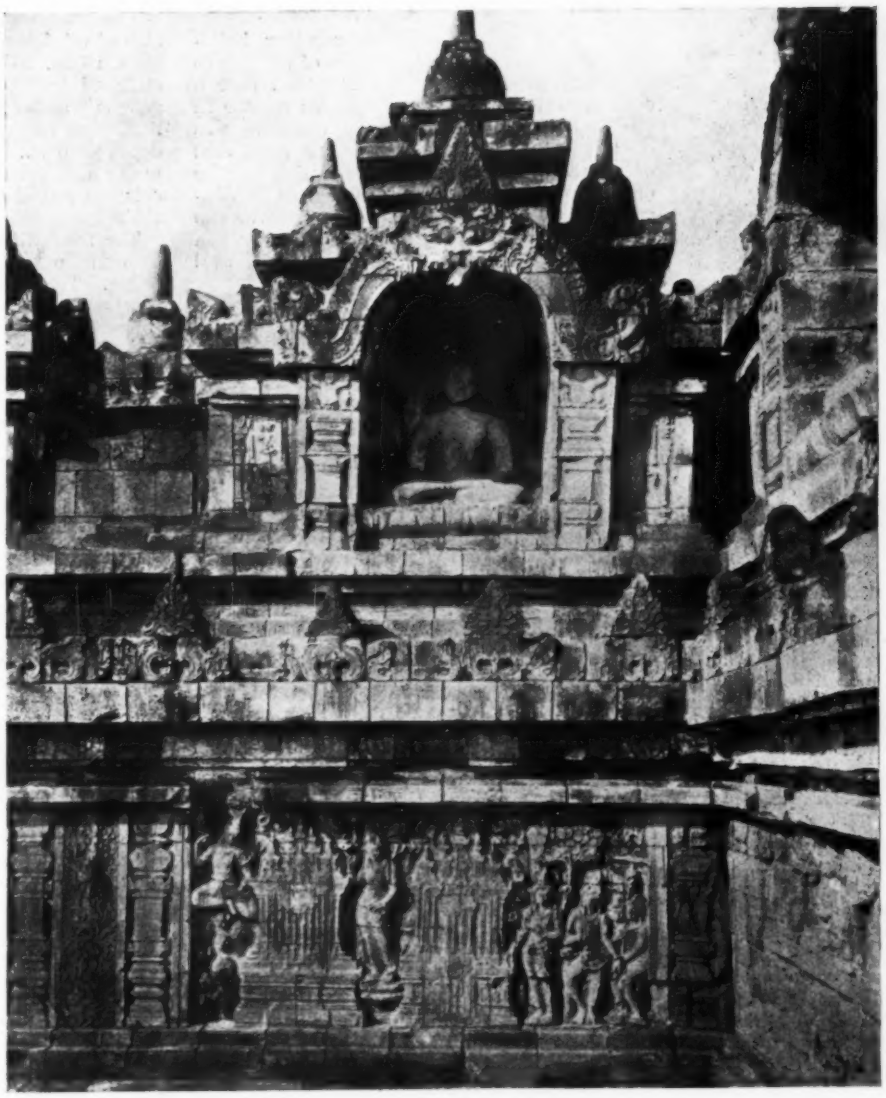
Victoria and Albert Museum.

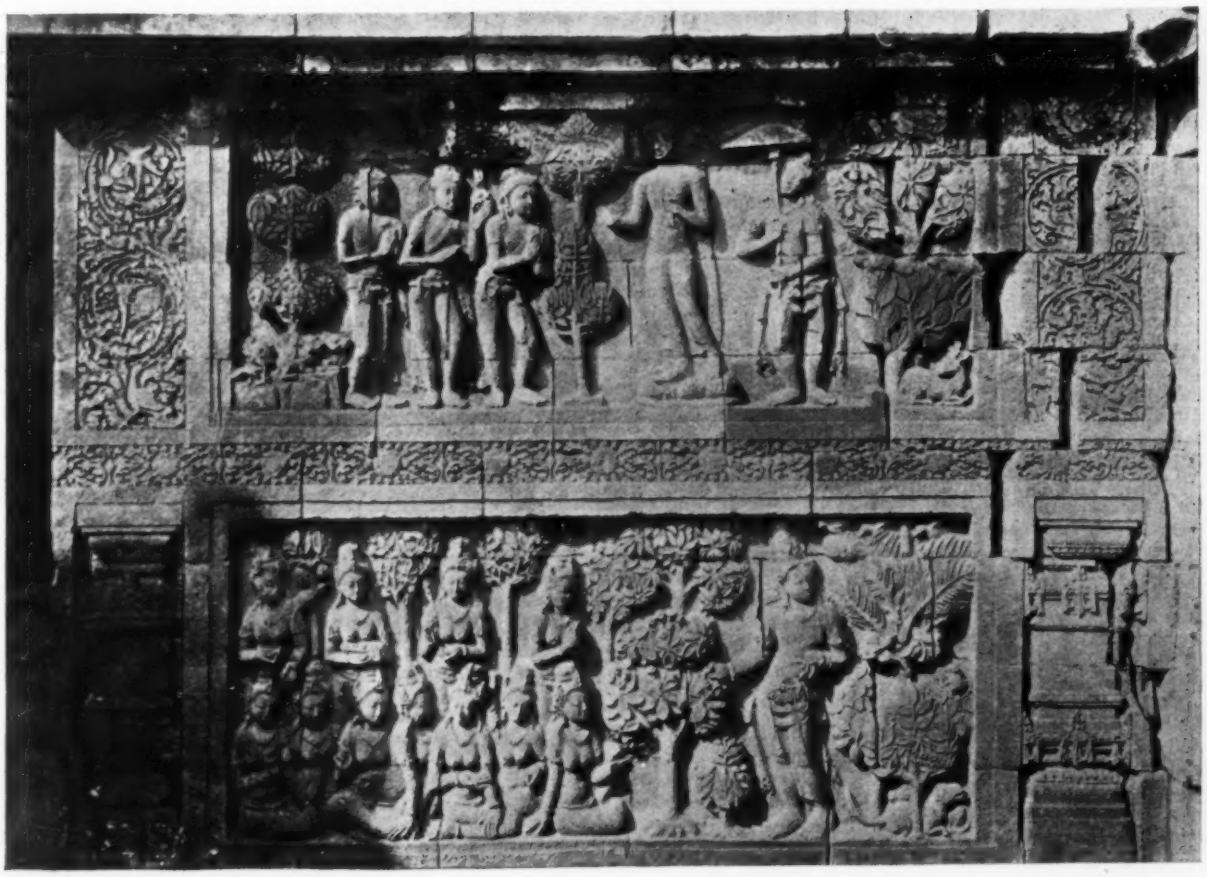
A series of informal lectures, illustrated by lantern slides, has been arranged to be given by members of the staff of the Museum and of the Royal College of Art, in the Lecture Theatre of the Museum, from 6 to 7 p.m., on Thursday evenings, from January to April. Admission to these lectures will be free. The lectures still to be given are as follows: January 29, Mr. A. J. Koop, "Chinese Bronzes"; February 5, Mr. A. J. B. Wace, "Greek Embroideries"; 12, Mr. E. R. D. Maclagan, "Italian Sculpture"; 19, Mr. G. H. Palmer, "Book Bindings"; 26, Mr. W. A. H. King, "Sèvres Porcelain"; March 5, Mr. A. L. B. Ashton, "Chinese Sculpture"; 12, Mr. O. Brackett, "Chippendale Furniture"; 19, Mr. E. W. Tristram, "English Wall Paintings"; 26, Mr. H. L. Wellington, "The Ionides Collection"; April 2, Prof. W. Rothenstein, "Indian Paintings and Sculpture."

Books Received.

THE MILITARY USES OF ASTRONOMY. By F. C. Molesworth. (London: Longmans, Green & Co.) Price 3s. 6d.

RATS AND HOW TO DESTROY THEM. By Mark Hovell. (London: John Bale, Sons & Danielsson, Ltd.) Price 10s. 6d.





Photos: G. Lewis.

Boro-Budur Temple, Java. (*See p.* 142.)

A meeting of the Royal Institute of British Architects was held at 9, Conduit-street, W.1, on Monday last, Mr. J. A. Gotch, President, presiding.

Obituary.

The Hon. Secretary (Mr. A. Keen) announced the death of Major Stewart Henbest Capper, M.A. Edin., F.S.A., R.O.A., elected Associate 1891; Thomas Morgan Bevan, elected Licentiate 1910, and Francis Giesler Newton, elected Licentiate 1911. It was decided that a message of sympathy and condolence be conveyed to their relatives.

Engineering Applications.

Dr. Oscar Faber then lectured on "Applications in Building and Foundations of Modern Engineering Construction." After dealing in the first part of his paper with the theory of this subject, Dr. Faber, in the second part, dealt with Practice, and said the design and construction of foundations had been subject to gradual growth and development as fresh problems presented themselves with the taller and heavier structures which were now demanded, and also as a result of comparatively modern materials such as steel and reinforced concrete. He hoped, nevertheless, that to some at least of the audience a description of actual difficulties experienced in practice and the methods by which they were solved might be suggestive and serve a useful purpose.

Ferro-concrete Rafts.—The author in his practice had been much impressed with the virtues of ferro-concrete rafts in many situations for solving foundation problems. As ferro-concrete itself was for practical purposes only from 20 to 30 years old, such construction might legitimately be considered to be modern. Among the principal advantages of concrete rafts as foundations might be included the following:—

(1) The pressure was distributed over the maximum possible area of soil, and therefore the pressure per sq. ft. was reduced to a minimum.

(2) Any tendency to unequal settlement was minimised, as a raft properly designed had a certain power of bridging over soft places and applying the loads to those parts best able to receive them.

(3) The raft also formed a tie preventing the lateral spreading of foundations which was sometimes important.

(4) In the case of buildings with deep basements, where the lower floor was frequently far below water level, some sort of raft construction was necessary to receive the upward water pressure and prevent it from flooding the basements. In these cases the raft and the retaining walls formed together a box which, by means of asphalte or other means, was rendered watertight.

Reviewing these points in detail, it frequently happened nowadays that a soil which would be quite insufficient with the normal pressures which isolated foundations would produce on the soil could be founded upon quite safely under a well-designed raft, and so avoid the necessity for sinking to great depths to secure a foundation of sufficient carrying capacity. The saving would, of course, depend on the depth at which this better foundation was found, and was, of course, enhanced when special difficulties such as water and perhaps the necessity of underpinning surrounding buildings were entailed in this process of digging to great depths. It frequently happened that a concrete raft could also be used as a floor in the building, and so increased economy was obtained. It sometimes required a good deal of courage to found on soils which in the ordinary way would be considered quite dangerous, and yet the author's experience was so favourable with these concrete rafts when properly designed as to give him a great deal of confidence.

In the case of a large warehouse of six stories in Lower Thames-street, it was found on examining the foundation soil that it consisted of black river mud, and a trial hole indicated that it would be necessary to take the foundations down a matter of 10 ft. below the basement floor before a satisfactory soil in the ordinary sense would be reached. After some consideration it was decided to float the building on a concrete raft on the black mud at the higher level. It was found that the pressure per sq. ft. under this raft would be of the order of 1,700 lbs. per sq. ft., which the writer considered would be safe for the mud in question, though he would not have dared to use it under isolated foundations. The builder in question was so alarmed at the instructions he received to construct this raft on the black mud that he caused his solicitor to write letters of protest to the architect and to disclaim all responsibility for all the terrible things he was certain would result. He followed this up by having levels taken at each stanchion every week. During the construction of the building he continued this, which was no doubt a very wise precaution from his point of view under the circumstances, but about a year after the completion he came to express his amazement of the fact that there had not been $\frac{1}{16}$ in. movement that he had been able to detect with his levelling. A very large saving to the client resulted from this method of dealing with the problem, and he thought most of them would have hesitated to found a building on this mud in any circumstances.

Perhaps one of the most interesting applications of rafts of this kind was to the large and important buildings being erected in Shanghai. The soil here consisted of a sandy clay brought down by the Yangtze River quite recently, geologically speaking, and contained so much water still as to be properly described as soft mud. The top 6 ft. had dried out a little more than below. Bore-holes had been sunk to a depth of over 400 ft., but instead of coming across more solid strata the material remained soft mud for the whole of this depth. The amazing thing was that on this soil magnificent large modern buildings, equal in size and magnificence to anything they were erecting in England, were being built. The construction in every case took the form of a reinforced concrete raft spreading the load over the whole area of the site and somewhat beyond it. This raft took a certain proportion of the weight of the building, and the rest was carried by piles driven into the ground before the raft was built. These piles did not rest on anything more solid, but added considerably to the resistance in virtue of the additional skin friction between them and the mud, or, looking at it from another point of view, they transferred part of the pressure from near the surface where the carrying capacity of the soil was low to a lower level where the soil was quite as soft, but had a higher carrying capacity by virtue of its depth, as previously explained. It had been his privilege to be associated with the firm of Messrs. Palmer & Turner, of Shanghai, in the construction of the Hong Kong Bank, the Chartered Bank, and the Yokohama Specie Bank, all of which were treated in this manner, and at the present time on the new Custom House. As the foundations were similar in all these cases, it would be sufficient to describe one of them, and for this purpose he selected the Custom House. This building was 450 ft. by 140 ft. in area, and had normally seven floors, though the front block had nine, and had in addition a tower 265 ft. high. The raft took the form of a continuous slab of reinforced concrete varying in thickness from 16 in. to 24 in. under the tower and stiffened by ribs in both directions, which were generally about 22 ft. apart. These ribs formed reinforced concrete beams and normally had a depth of 6 ft., including the bottom slab, but under the tower were increased to 9 ft. The columns rested on the tops of these beams at their intersections.

The most difficult portion in the case of the Custom House was that immediately under the tower. The total load which came down in four small areas under the four corners of the tower was altogether 6,700 tons, and this load was distributed by the raft over an area of approximately 60 ft. sq. Of this total load 2,240 tons were carried by the direct action of the soil on the raft and 4,460 tons by the 225 concrete piles in this area. It would readily be understood that to transmit these heavy loads over this area required very considerable strength. The main reinforcements were $1\frac{1}{4}$ in. diameter, and the largest beams had 16 such rods in the tension side. The shear strength had to be very carefully considered with beams of this kind, and both bent-up rods and stirrups were used for this purpose. The piles were of reinforced concrete 50 ft. long, 16 in. square, and the surface was serrated to give additional friction resistance. One of the difficulties on a soil of this kind was that even after taking all these precautions considerable settlements were experienced. These settlements were not found to be damaging, provided the whole building settled at the same speed and the same amount. To ensure this it was necessary to proportion the carrying capacity of the back of the raft to its particular load, so that no portion should tend to settle more than any other. This was effected by so distributing the piles as to provide for each section of the raft exactly the additional resistance required over and above what the soil itself would carry. It would be seen that in structures of this kind it was just as dangerous to make one part of the raft too strong as to make another part too weak, because the part that was too strong would fail to settle with the rest and would then cause the structure to break its back. The safe pressure on the soil allowed by the Shanghai regulations was only 1,600 lbs. (about $\frac{3}{4}$ ton) per sq. ft., and it was, he thought, remarkable that with such a soil buildings of this magnitude could be erected at all. It was usual in the case of large buildings in Shanghai to estimate beforehand what the likely settlement would be and build the structure above its final level by this amount. In the case of the Hong Kong Bank and the Chartered Bank, the ground floor was made at a level of 12 in. above the position where it was thought likely to come to rest, and temporary steps were erected from the street, which were removed one at a time as settlement proceeded. The actual movement on the Hong Kong Bank up till last summer was approximately 9 in. to 10 in.

The lecturer then referred to one or two special examples of small rafts which, in spite of their being small, had special points of interest. One of these was represented by the rafts for the laundry and power house at Marlborough College, for which Messrs. Ernest Newton, R.A., & Son, were architects. This was founded on very soft, low-lying soil, and it was desired to keep the ground floor 18 in. above the general level of the ground owing to the risk of floods. A raft foundation was used, the portion near the walls being about 9 in. thick and the top level with ground level. The portion between the walls was raised up above the ground so as to form the ground floor and actually rested on hard core rolled on to the mud to receive it. In this way the raft also formed the ground floor, and so made a considerable economy, and deep foundations below water-logged ground were entirely avoided. There had been no settlement, in spite of the fact that heavy engines supplying both the College and the town with electric light were founded on the raft and produced considerable vibration.

A specially interesting raft was used in the Harrow Music School. This structure, which was some fifty years old, was built on the side of

a hill at Harrow on yellow clay, which in Harrow was particularly treacherous. The building was originally built on brick tiers, averaging 14 ft. to 16 ft. below ground floor, and spread on concrete piers averaging perhaps 5 ft. square. At the date when he was interested in it, a year or two ago, settlements in the building were so pronounced as to render it dangerous, and the settlements were proceeding. Some repair work had been done a few years previously, but had not stopped the settlement. Calculations of the bearing pressure under the piers showed that these pressures, though only amounting to about 1¾ tons per sq. ft., were more than the clay would resist without settlement, in spite of the depth of the piers. Underpinning would have been a very hazardous and expensive operation, and he recommended the construction of a concrete raft only 8 in. thick, to be constructed as a basement floor and chased into the existing piers so that no further settlement could take place without taking the raft with it. This raft had to be constructed at various levels, owing to the slope of the ground, and was an inexpensive operation, and he was told that no further settlement had taken place. The effect of the raft was to reduce the pressure down to only 1,100 lbs. per sq. ft., which practically any soil would resist without settlement.

The lecturer then dealt with concrete piles, and said up till quite recently piles for carrying buildings were practically always of timber. This material had all sorts of advantages, but, unfortunately, one very serious drawback, viz., that even under favourable circumstances it could not be relied on for more than 100 years, and where the timber was exposed to both air and water, this period might be reduced to twenty years or even less. It therefore had serious disadvantages in modern building construction, and though he understood timber piles were recently used in a very large and important building in London, he could not imagine that this would be the practice of the future. The life of reinforced concrete was a subject about which there had been much speculation and difference of opinion, but he thought the matter was fairly summed up as follows.

They had little actual experience of reinforced concrete of more than thirty years, but such as they had went to show that, with certain reservations, it was as good to-day as it was the day it was made. These reservations were as follows:—

(1) Where the cover of concrete was inadequate in thickness, or where the concrete had been of faulty materials or gauged with insufficient cement, or where the concrete had been broken away by mechanical injury or was imperfect from the first, owing to carelessness in concreting, corrosion had set up.

(2) Reinforced concrete seemed to stand fresh water perfectly, but suffered deterioration in seawater and water in boggy or peaty land containing organic acids unless special precautions were taken. The use of reinforced concrete had suffered, and would suffer, from the insane system of competitive and commercialised, as opposed to professional, designing which, strangely enough, still had the support of some architects, though it necessarily puts the designer in the uncomfortable position of having to skin the design to the bone or lose the job to a lower tenderer. Reinforced concrete was really the worst material for such treatment, because the difference between a design with adequate protection and one without, which might represent perhaps only 5 per cent. in cost, might mean the difference between 20 and 100 years in the life. Nevertheless, the lecturer was quite convinced, both from theoretical considerations and from the evidence of the oldest structures that they had, that where the design and execution were the best of their respective kinds then reinforced concrete in ordinary situations was the most lasting material which they had, with the possible exception of the best stonework and brickwork, the exclusive use of which was generally impossible in modern secular buildings owing to the excessive space which they demanded.

In the case of concrete piles, they had an excellent application of reinforced concrete where it probably had no equal. One of its objections until quite recently was the length of time which it took to harden sufficiently to stand driving. This disadvantage had recently been practically obviated by the great advances made in the manufacture of cement. Not only had there been a gradual but marked improve- in ordinary cement over the last twenty years, but remarkable advances in the last year or so were still more noteworthy.

While on the subject of concrete piles, it was perhaps interesting to mention that there were in existence about ten formulæ for determining the safe carrying capacity of a pile from the weight of the monkey, its drop and the final set per blow. These formulæ all gave greatly differing results, and he had known cases where these results had differed as much as from 20 tons to 140 tons. It was clear they were all quite unreliable, and, indeed, they all failed to take into account some of the important factors on which the carrying capacity of the pile depended; one of these, perhaps the most important one, was the "taking up," as it was called, when the pile is allowed to rest after driving. The Menin Gate in Ypres, for which Sir Reginald Blomfield was the architect, had foundations consisting of roughly 25 ft. of quicksand, with blue clay below. The foundation consisted of about 500 ferro-concrete piles 40 ft. long, extending through the quicksand and roughly 15 ft. into blue clay. A 3-ton monkey dropped 3 ft. produced on these piles a set of somewhere between ¼ to ⅜ in. per blow. An interesting test was made on some of these piles by leaving them for a month or so, and then applying the same blows to a pile as had produced ⅜ in. set per blow during driving. The effect of twenty blows on the pile was nil, and the pile absolutely refused to drive after a period of rest. This taking up depended very much on the nature of the soil, and was accounted for as follows: When the pile was first driven, the soil immediately surrounding it had its cohesion shattered by the vibration of driving and, therefore, driving proceeded comparatively easily. After a period of rest the soil pressed against the pile owing to the hydrostatic pressure existing in the soil, and this cohesion was gradually built up again. In other words, the pile stuck to the clay or surrounding earth, and this cohesion had to be broken down before further movement of the pile would take place. The whole of this cohesion was available for supporting the pile and was a very large element of the total resistance. This additional cohesion or "take-up" was greatest for blue clay and least for dry sand, and therefore any pile formula which failed to take into account the nature of the material through which the pile was driving could obviously only be misleading.

Discussion.

Mr. H. D. Searles-Wood then moved a vote of thanks to Dr. Faber, and Mr. E. Fiander Etchells, in seconding the vote of thanks, said the problem the lecturer had discussed was one of the utmost difficulty, and would probably never be solved to the satisfaction of everyone. With regard to Rankin, he thought perhaps they could not blame Rankin in connection with his experiments in clay, as he had to use Scotch clay, which was absolutely dissimilar from London blue clay. The paper generally, however, certainly removed many problems from the realm of opinion to the realm of fact. The formula for foundations included extreme cases—there was no general rule—it therefore added austere beauty to the method. Surveyors, when speaking of hydrostatic pressure, usually said they could have a pressure of four tons if they went down deep enough, otherwise they must be content with two tons or less.

Mr. Ewart S. Andrews said he had been working on similar grounds to Dr. Faber and would like to draw attention to the fact of his high academic distinctions. They could not, however, fail to see running through his paper evidence of vast practical experience, and it should encourage the younger men to pursue their theoretical studies. The lecturer could not have chosen a more important subject for his address to the Institute; it was a subject which had been somewhat neglected by engineers. There was one point he would like to mention, and that was, it seemed to him, that the pressure you could safely put on a given foundation depended on the size of the foundations.

Mr. Gower Pimm said the time had now come when theory and practice should be brought more into harmony. The best definition of theory, which he had heard from Mr. Etchells was that theory is "meditation upon practice." The lecturer had touched upon the relationship of the architect and the engineer, and he considered the time was not far distant when their relationship would be one of more dignity. The lead had been given by the Government and engineers felt strongly about it.

At the conclusion of the discussion Dr. Faber briefly responded.

PRIZES AND STUDENTSHIPS.

The annual award of the Prizes and Studentships was published at the meeting on Monday. The names of the successful competitors in the following competitions were announced:—

The R.I.B.A. Essay—Silver Medal and £50.

Awarded to the author of the essay entitled "The Æsthetics of the Ancients," submitted under the motto "Alpheus" (Mr. F. Pentland Chambers, West Dulwich); and a certificate of honourable mention to the author of the essay entitled "The Architect in History, his Training, Status and Work," submitted under the motto, "Let us now praise famous men and our fathers that begat us" (Mr. Martin S. Brigg, Mill Hill).

The R.I.B.A. Measured Drawings—Silver Medal and £50.

Awarded to the delineator of the drawings submitted under the motto "Bee" (Mr. R. W. Briggs, Manchester); and a certificate of honourable mention to the delineator of the drawings submitted under the motto "A. M. D. G." (Mr. T. A. Coia, Glasgow).

The Tite Prize and £100 for Design.

The certificate and £100 awarded to the author of the design submitted under the motto "Tessera" (Mr. D. H. Beatty Pownall, A. A. School); and certificates of honourable mention to the authors of the designs submitted under the mottoes "Key" (Mr. F. D. Scarborough, London) and "Chianti" (Miss Alison Sleigh, A. A. School.)

The Pugin Studentship.

The Medal and £75 awarded to Mr. D. H. McMorran; and a certificate of honourable mention and £10 to Mr. E. H. H. Williams.

The Owen Jones Studentship.

The certificate and £100 awarded to Miss L. F. M. Payne.

The Godwin Bursary and Wimperis Bequest.

The Silver Medal and £130 awarded to Mr. L. H. Bucknell, A. A. School.

The R.I.B.A. (Alfred Bossom) Studentship.

Silver Medals were awarded to the authors of designs submitted under the following mottoes: "Red Diamond" (Mr. F. H. Heaven, Glam), "Thol" (Mr. C. T. Bloodforth, Liverpool), "Taxi" (Mr. F. E. Bennett, A. A. School). The Gold Medal and £250 was also awarded to Mr. F. E. Bennett.

The Grissell Gold Medal and £50.

The Medal and £50 was awarded to the author of the design submitted under the motto "Iona" (Mr. A. E. Cameron, A. A. School).

The Ashpitel Prize.

The Council has, on the recommendation of the Board of Architectural Education, awarded the Aspitel Prize (books, value £10, awarded to the candidate who has most highly distinguished himself among the candidates in the Final Examinations of the year) to Mr. Geoffrey Reynolds Barnsley, Temple, E.C.4, Probationer 1919, Student 1922, and who passed the Final Examination December, 1924.

The R.I.B.A. Silver Medal for Recognised Schools.

The Council has awarded the Silver Medal for the best set of drawings submitted at the annual exhibition by post-graduate students of the recognised schools exempted from the final examination to Miss Elsie Rogers of the Manchester University School of Architecture.

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ILLUSTRATIONS

Group of Bungalows in East Anglia.

The bungalows shown by the drawing illustrated are being built for the aged on an estate in East Anglia. There is no contractor, the work being done by estate workmen under the supervision of the architect, Mr. George J. Skipper, F.R.I.B.A., Norwich.

Alterations to the Old County Hall, Spring Gardens.

The adaptation to picture galleries, dancing and reception rooms of the building where the Aediles of the County have met for so many years to conduct the administration of the affairs of London, is a great change. Its opening in December to the retrospective exhibition of the New English Art Club was a great event in the art world, and the further use of the accommodation in the evening for dances and receptions is a change to social uses which fills a desirable and much-sought-for advantage in the W.C. locality. The alteration which was primarily essential arose through the adaptation of the rooms as a picture gallery, and the lighting, as far as possible on modern lines, has involved a great number of difficult problems. The illustrations show the method adopted to overcome them.

The entrance gallery (No. 3 on plan) is the only one which lent itself, and that in a very limited way, to the adoption of the "top-side" lighting advocated by Mr. Hurst Seager. The bias of a plan in all other rooms renders it necessary to adopt a pseudo system of "top-side" lighting, which is to be observed in the galleries marked 2 and 4. The Old Council Chamber, referred to in the plan as No. 1 Gallery, is dealt with by inserting two large vertical lights in the east and west walls. Before the alterations the room was lighted by double skylights, the outer one being of obscured glass; this was removed and clear glass inserted, in the hope of increasing the light. In this room, which is prepared for receptions and dances, the "Valtor" system of spring floor has been adopted, and together with the remaining galleries has been provided with a new heating system. The small room on the west of the corridor adjoining has been fitted as a kitchen and scullery.

The general contractors for the work are Messrs. C. P. Roberts & Co., Ltd., of Tyssen-street, Dalston-lane, E.8; and the sub-contractors were: Spring "Valtor" floor, Messrs. Francis Morton, Junior, & Co., 22, Laurence Pountney-lane, E.C.4; ball-room and parquet flooring, Messrs. Howard Brothers, Berners-street, W.; fibrous plaster work, Mr. Arthur May, 37, Harrington-street, N.W.1; steel casements, Messrs. Luxfer Prism Syndicate, 16, Hill-street, Finsbury, E.C.2; roof glazings and sanitary fittings, Messrs. Mellowes & Co., Ltd., 26, Victoria-street, S.W.1; door furniture, Messrs. Yannedis & Co., 25, Theobald's-road, W.C.1; heating, Messrs. James Gray, Ltd., Danvers-street, Chelsea, S.W.; ventilation, Messrs. Matthews & Yates, 31, High Holborn, W.C.; electric installation, Messrs. Ohms, Ltd., Upper Berkeley-street, W.1; electric light fittings, Messrs. Gillham & Jones, 31, Newman-street, W.1, and the General Electric Co., Magnet House, Kingsway, W.C.2.

Mr. H. W. Langdon, F.S.I., of New Courts-chambers, 57/58, Chancery-lane, was the quantity surveyor, and Messrs. Riley & Glanfield, FF.R.I.B.A., of 6, Raymond-buildings, were the architects.

Harrow School: Cottage.

This cottage, provided for the use of a groundsman, is on the cricket ground and stands in a garden site backed up and shielded by trees. The walls are rough cast and the roof is covered with flat tiles, as funds would not permit the use of reed thatching. The cottage was presented by Mr. J. A. G. Apear. The contractor is Mr. W. Taylor, of Harrow, and the architect is Mr. George J. Skipper, F.R.I.B.A., of Norwich.

Harrow School: Covered Cricket Pitch.

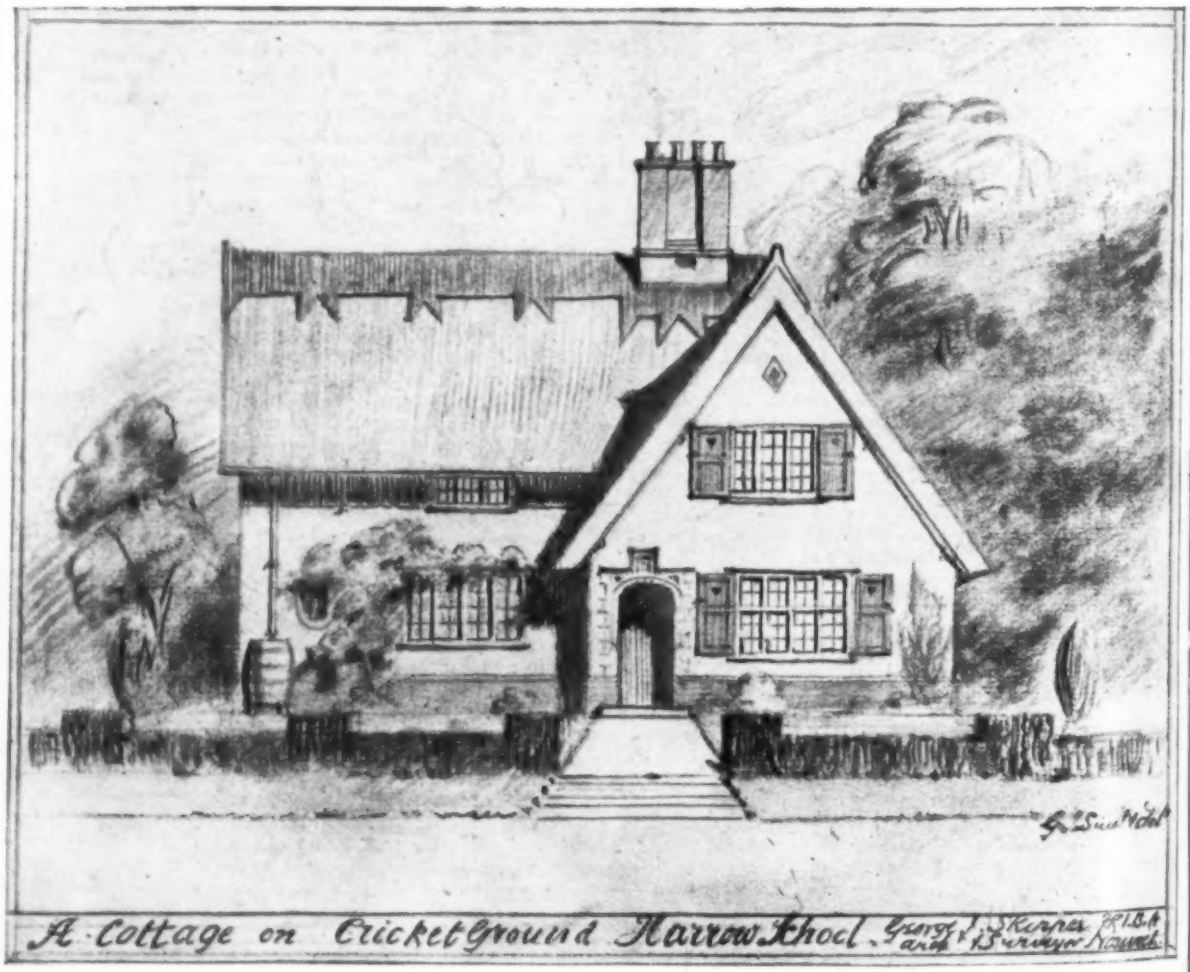
This building is now being erected south of the pavilion on the slightly rising ground eastwards of the cricket ground proper. The trees both at the front and at the rear of the building are in existence, as shown in the drawing. The plan is merely an oblong structure wide enough to accommodate two full cricket pitches, and completely matted. Mr. W. Taylor, of Harrow, is the cantractor for this work, and the plans are the work of Mr. George J. Skipper, F.R.I.B.A., of Norwich. The pitch has been presented to the School by Mr. G. H. Potts.

Chislet Colliery Village, near Canterbury.

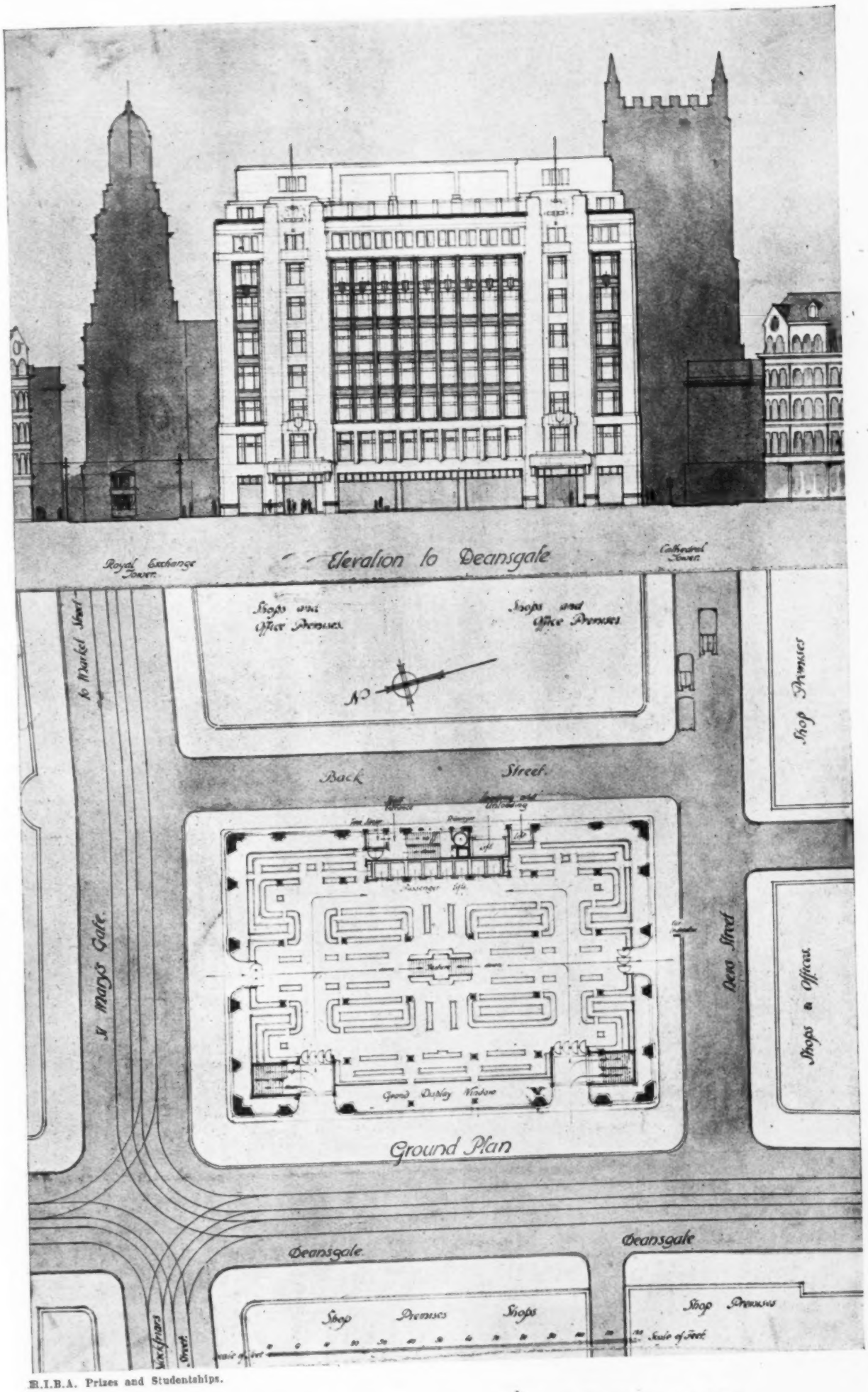
This is the sketch design for the centre of this village, comprising the village green, the church, institute, library, schools, inn, bank, etc., shops and cottages. But as the lay-out is for one thousand houses, and the site comparatively narrow and extending along the Island-road, a secondary shopping-centre is arranged. There are two pieces of woodland breaking into the site, and these will be developed. There are only about sixty houses up or being built, but it is expected now to proceed with much more expedition. The present work is being carried out by Mr. George Browning, contractor, of Canterbury, from the plans of Mr. George J. Skipper, F.R.I.B.A., architect, of Norwich.

Anglo South American Bank.

Messrs. Wallis & Watson, Ltd., Leeds, inform us that they were responsible for the whole of the electric lighting of this building, illustrated in our last issue.



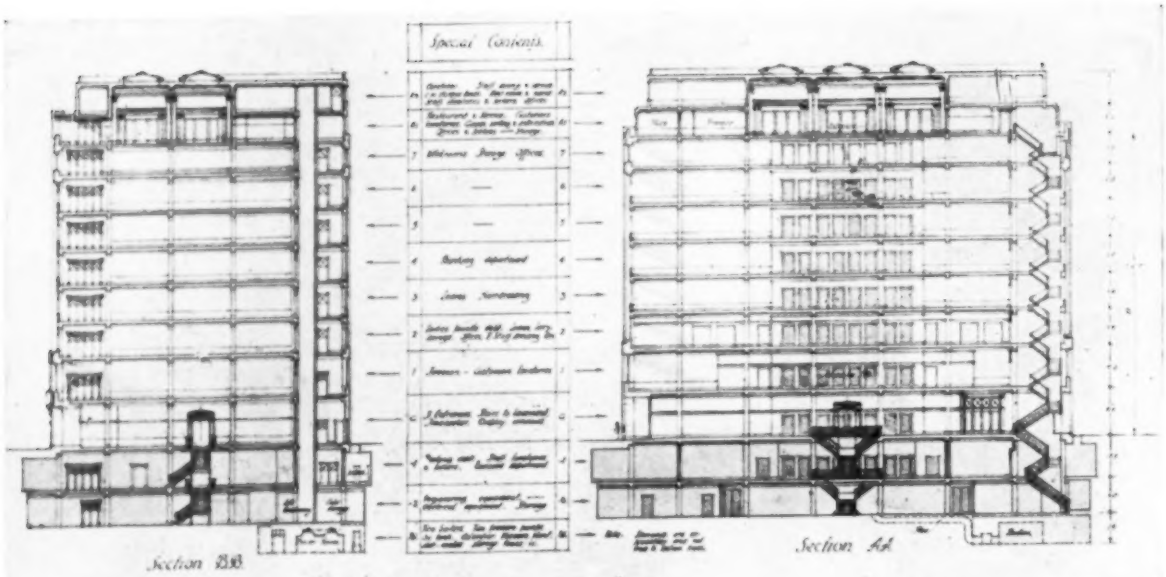
MR. GEORGE J. SKIPPER, F.R.I.B.A., Architect.

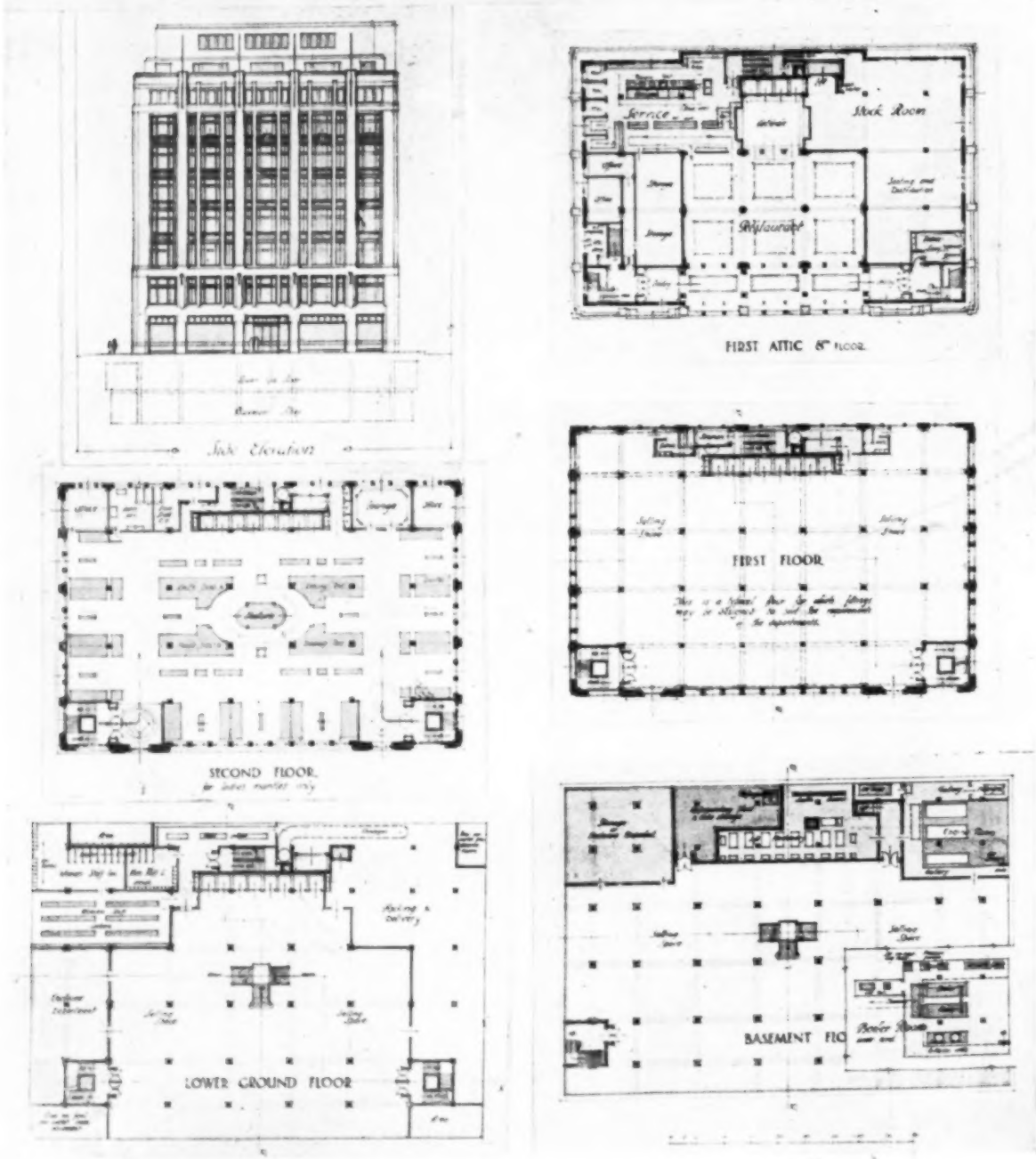


R.I.B.A. Prizes and Studentships.

Design for a Building on an Island Site. BY MR. F. E. BENNETT, A.R.I.B.A.

[Awarded Alfred Bossom Studentship: Gold Medal and £250.]





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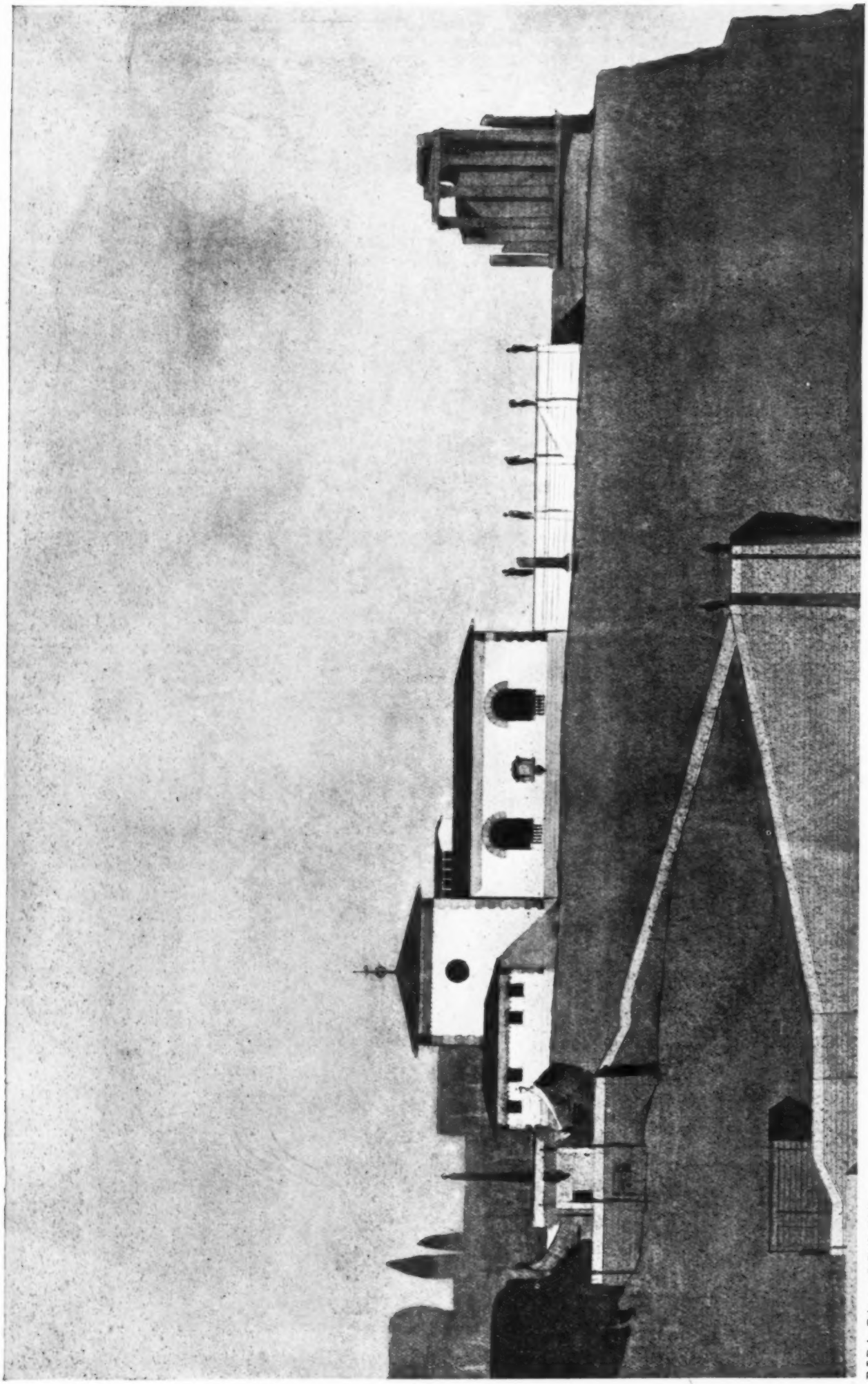
Architectural
Library



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[Awarded Tite Prize and £100.]

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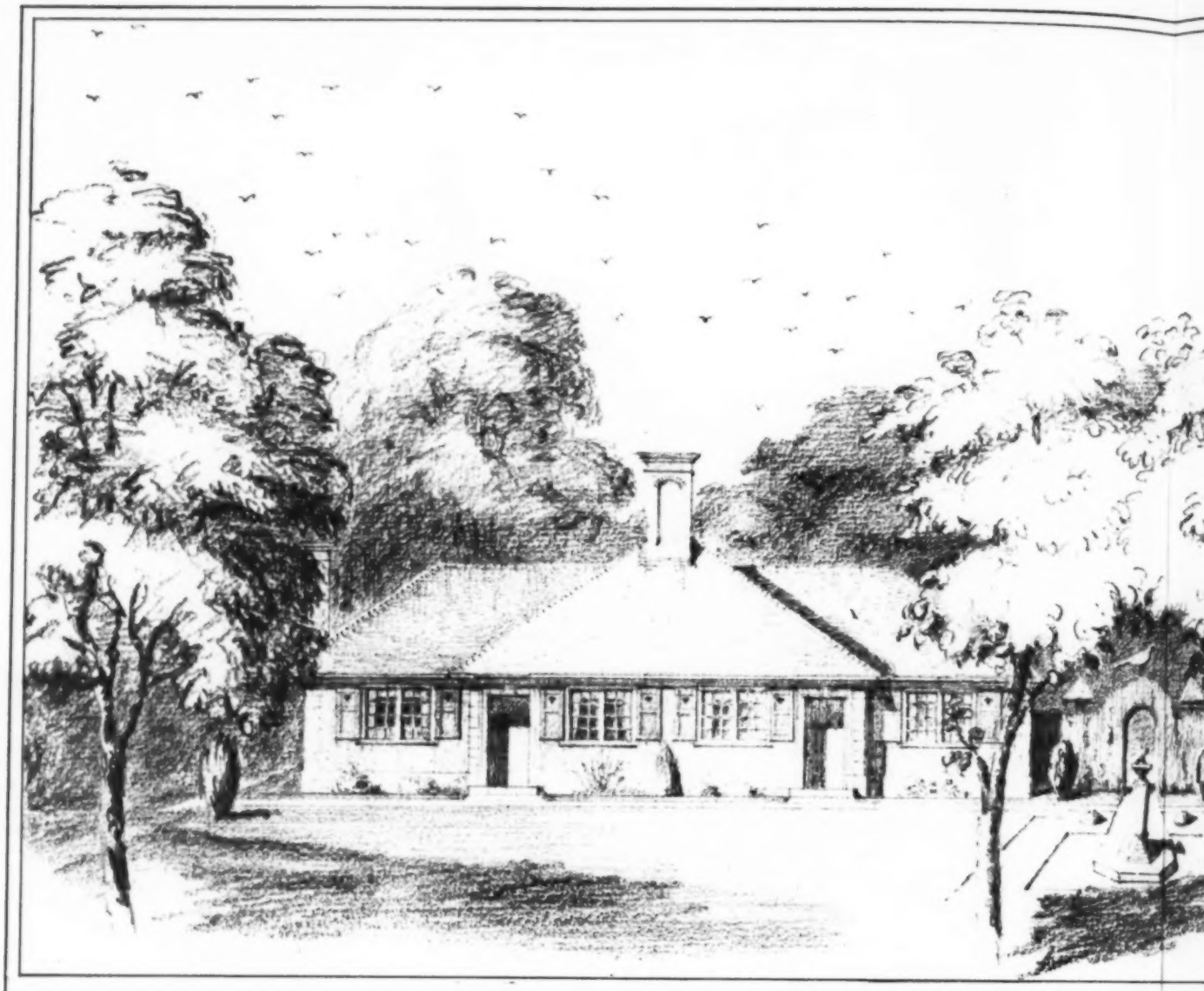
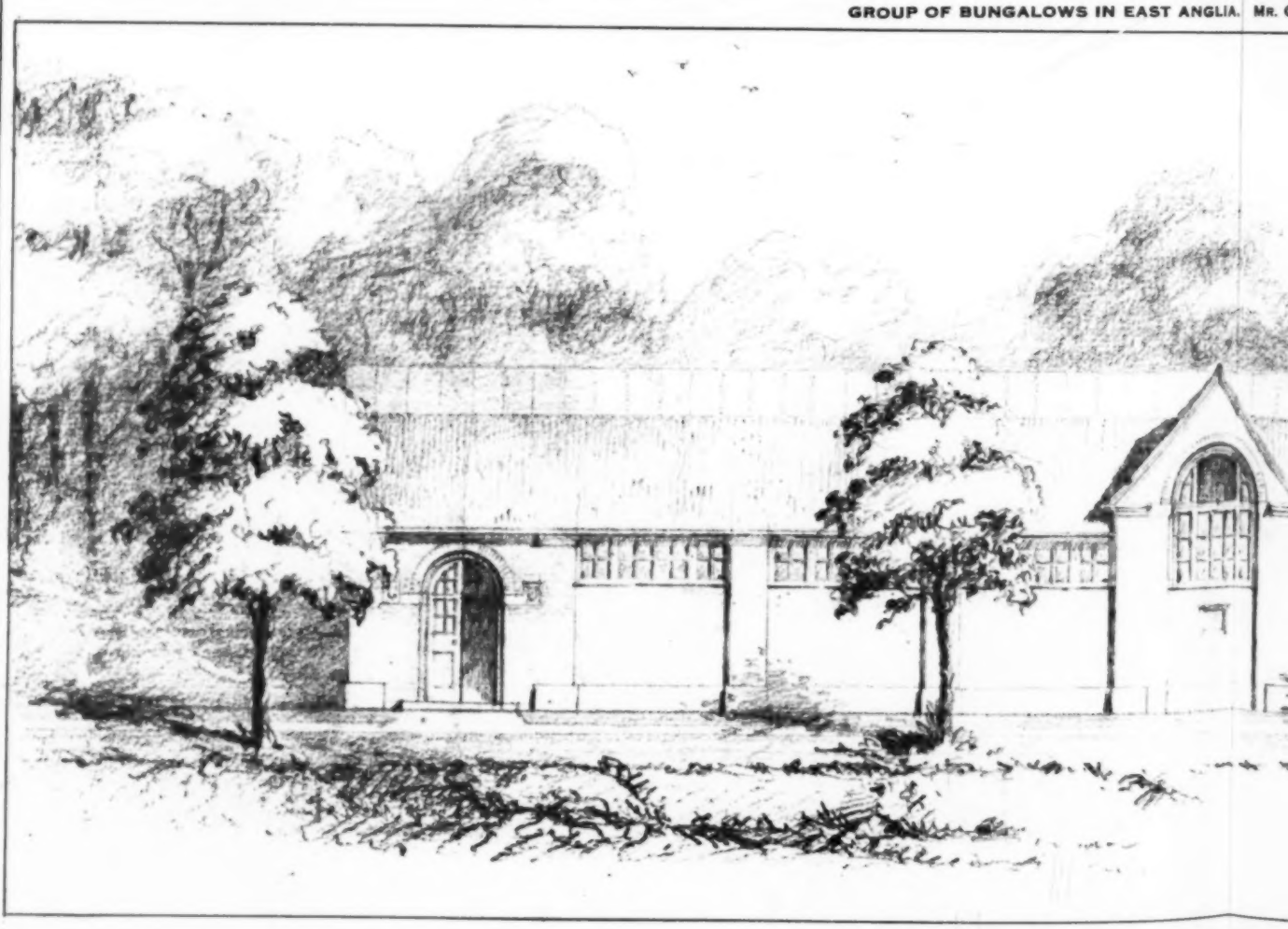
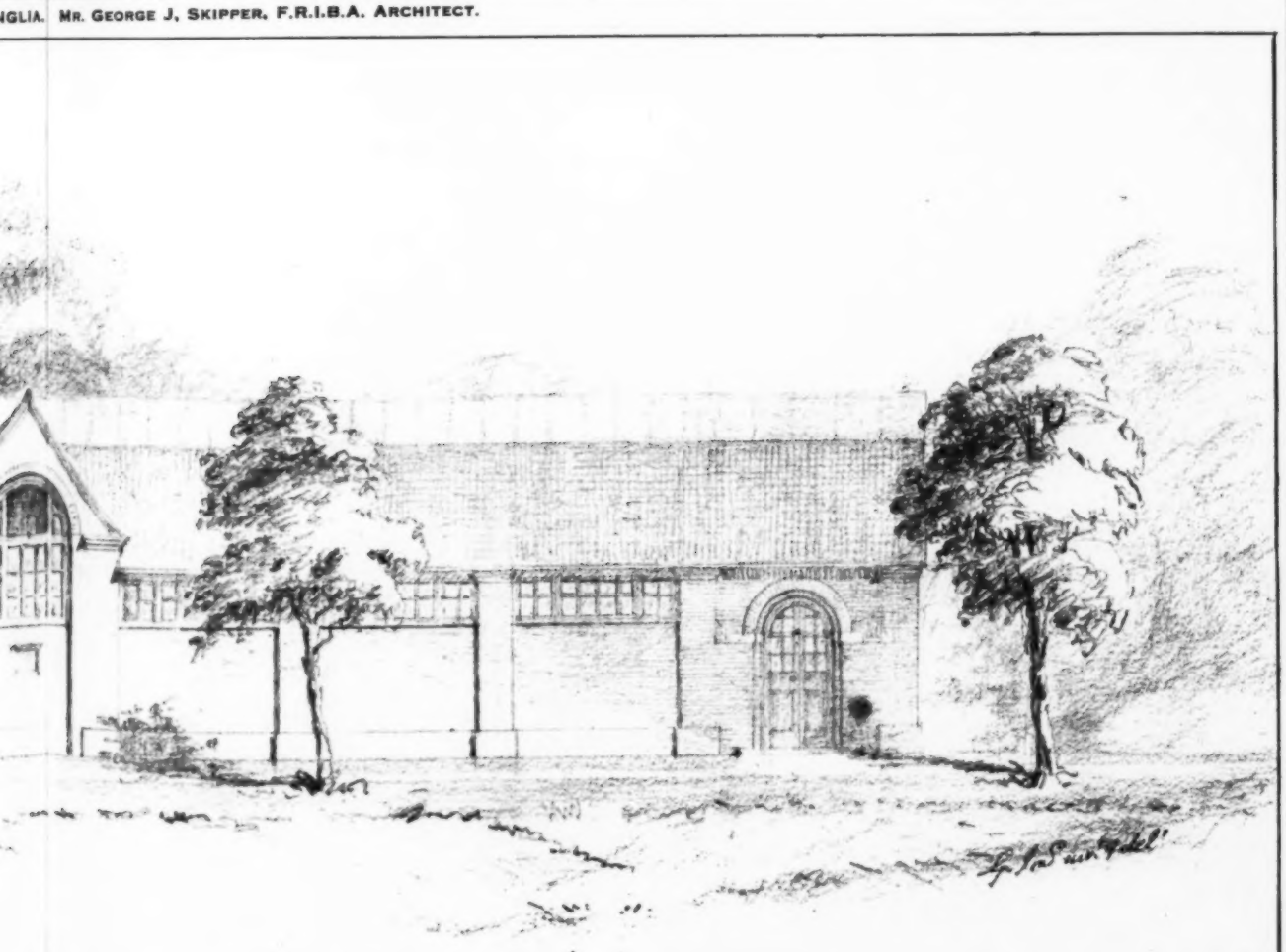


GROUP OF BUNGALOWS IN EAST ANGLIA. Mr.

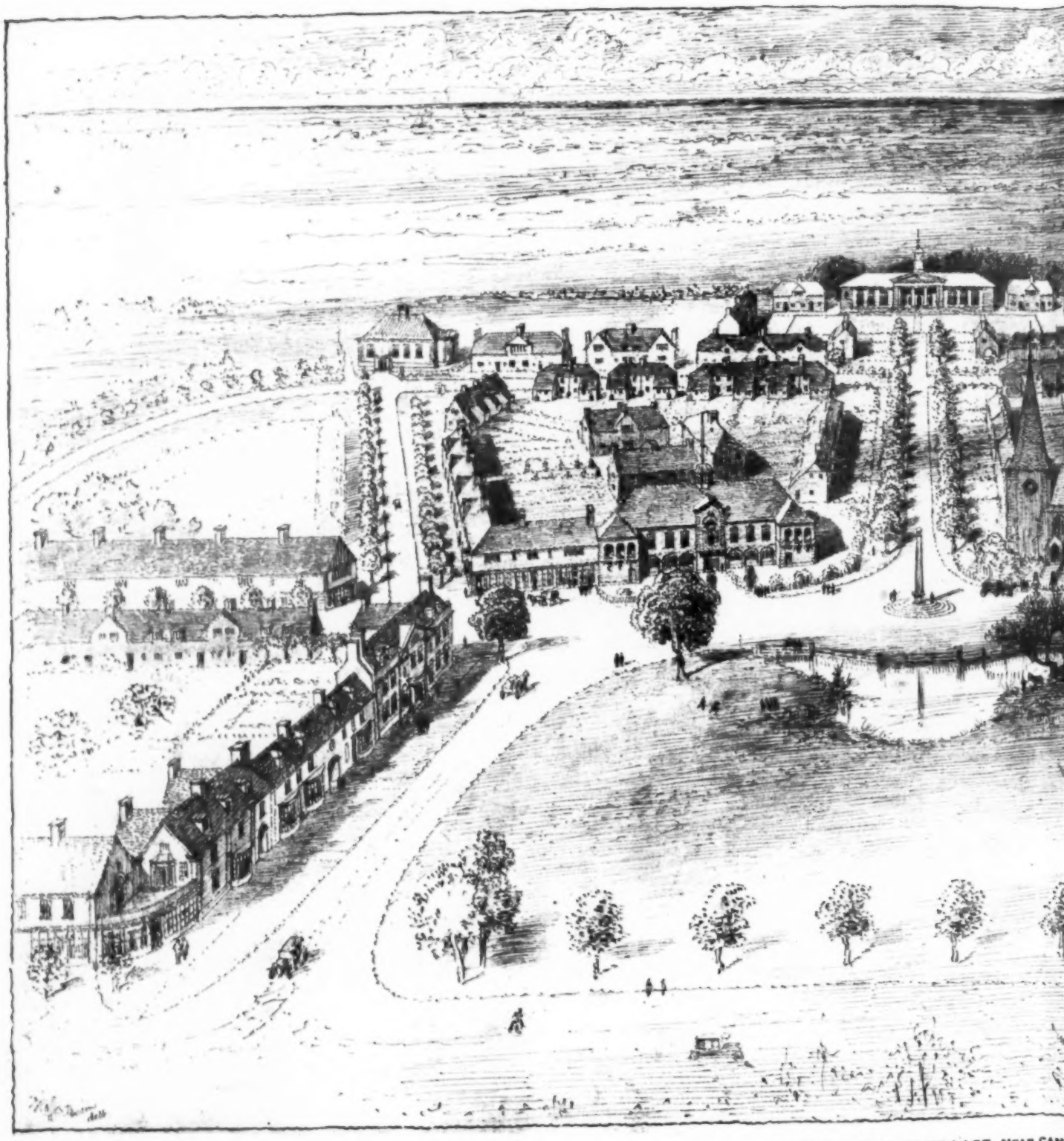


COVERED CRICKET PITCH, HARROW SCHOOL. Mr. G

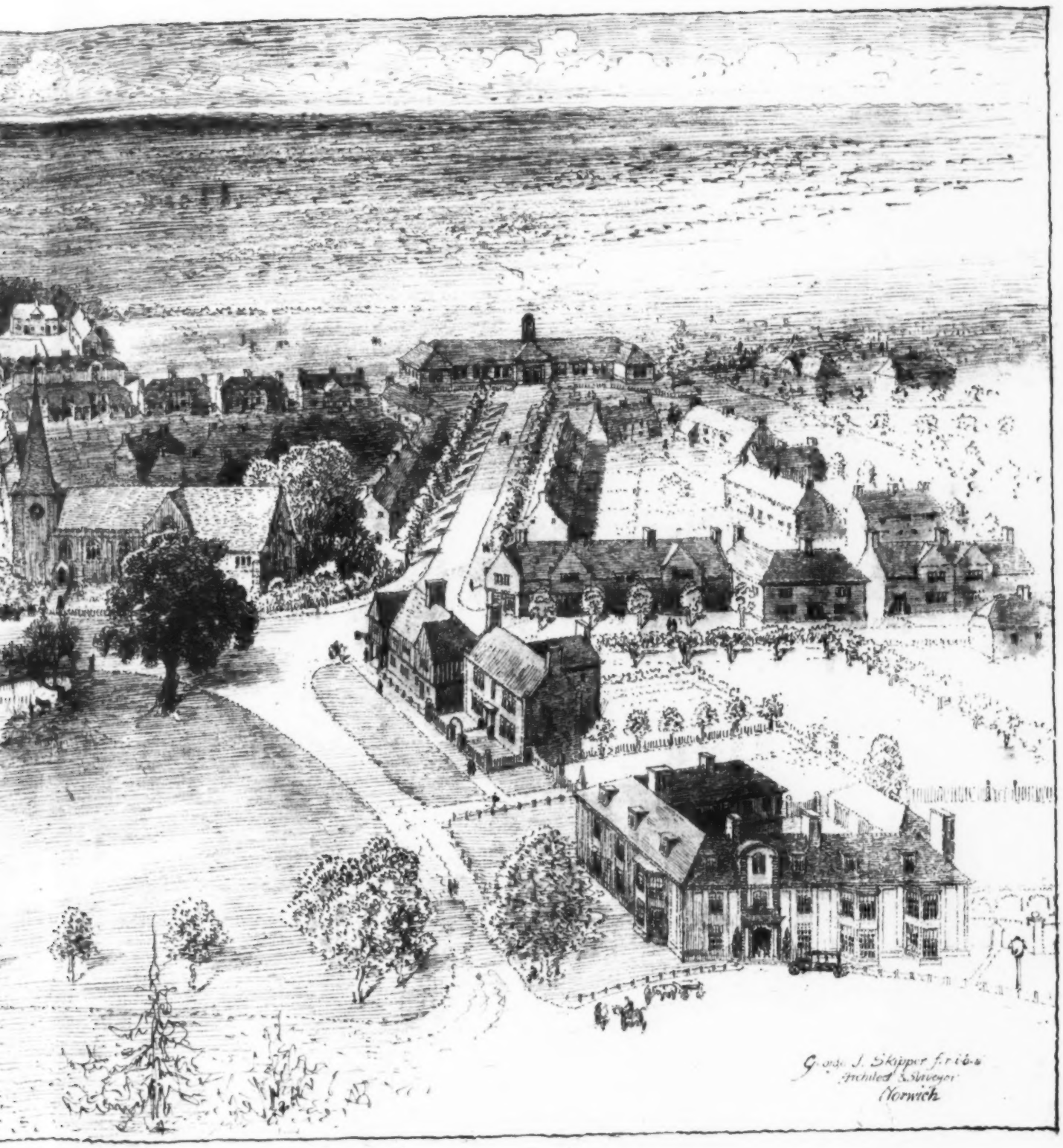
NGLIA. MR. GEORGE J. SKIPPER, F.R.I.B.A. ARCHITECT.



CHOOL. MR. GEORGE J. SKIPPER, F.R.I.B.A., ARCHITECT.



CHISLET COLLIERY VILLAGE, NEAR CAN
MR. GEORGE J. SKIPPER, F.R



, NEAR CANTERBURY: THE VILLAGE GREEN.
SKIPPER, F.R.I.B.A. ARCHITECT.

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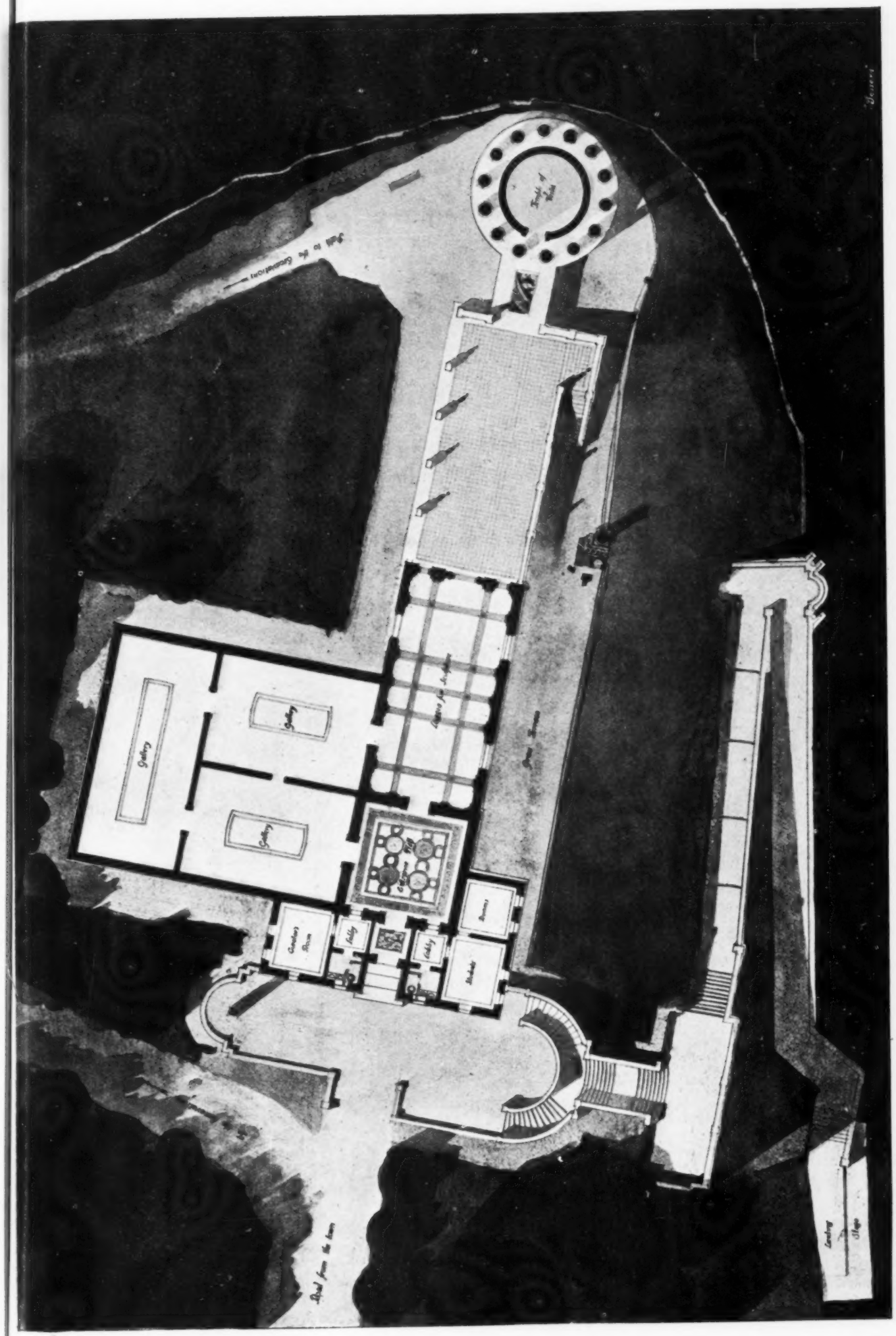
Library



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R.I.B.A. Prizes and Studentships.

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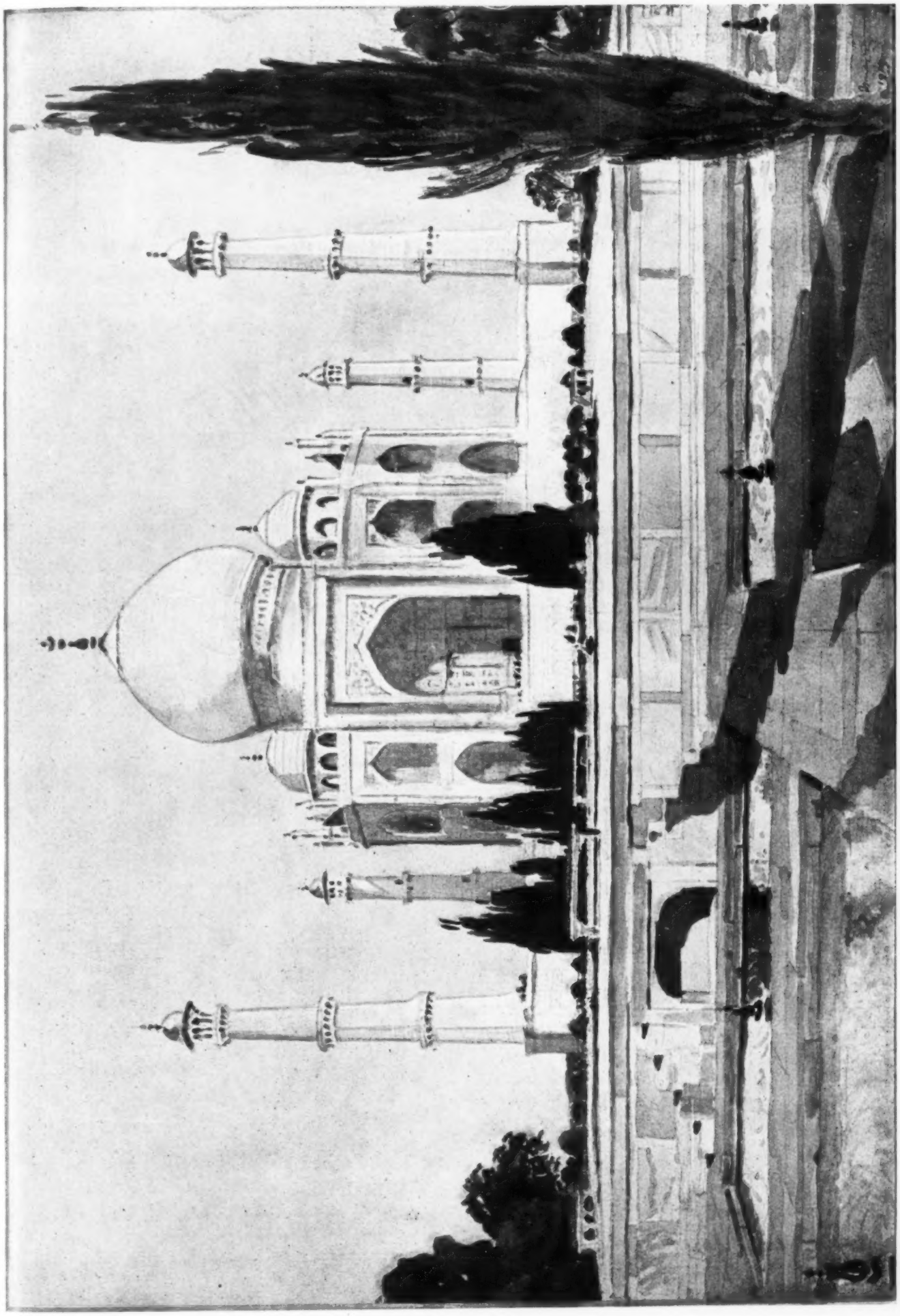
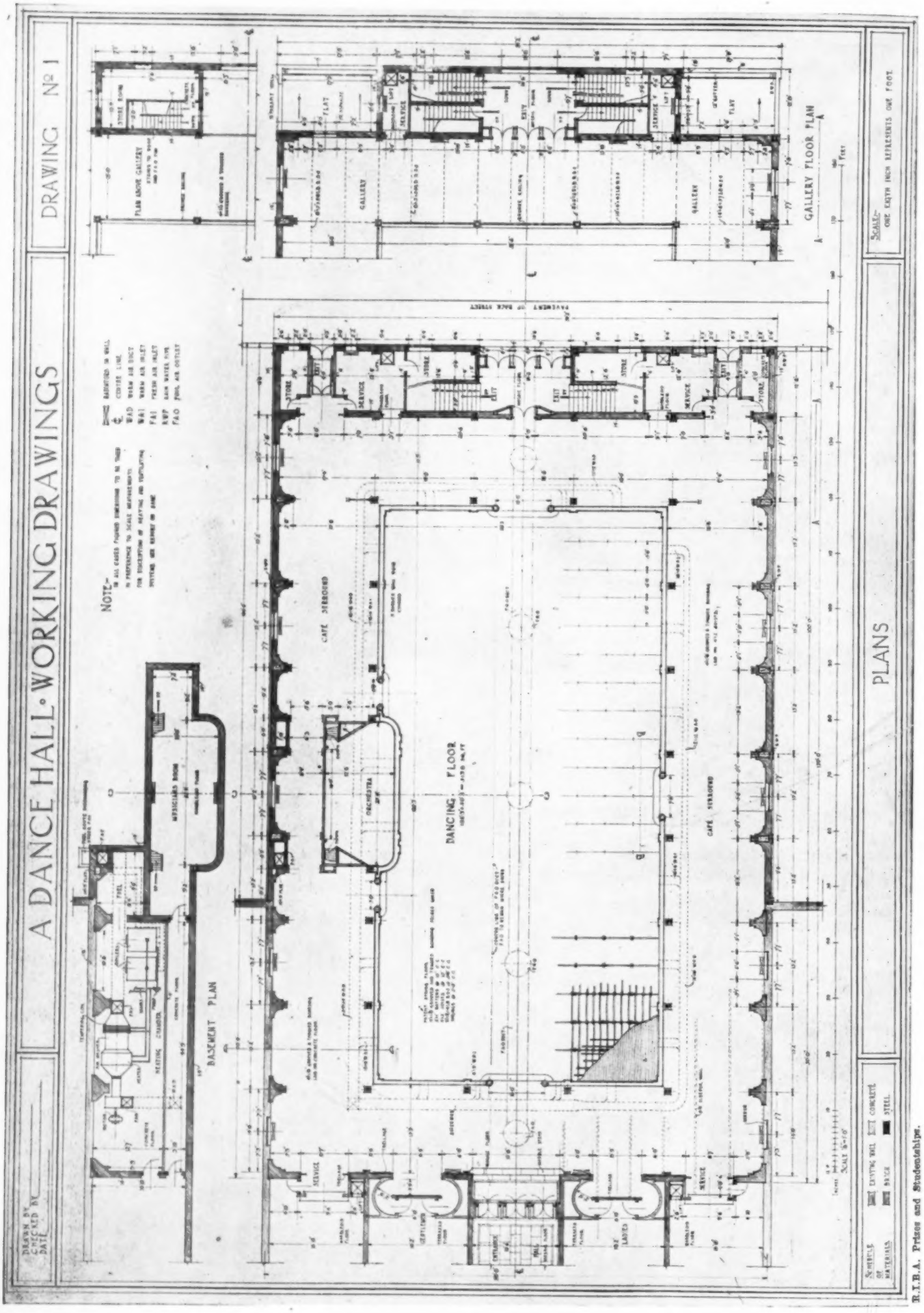
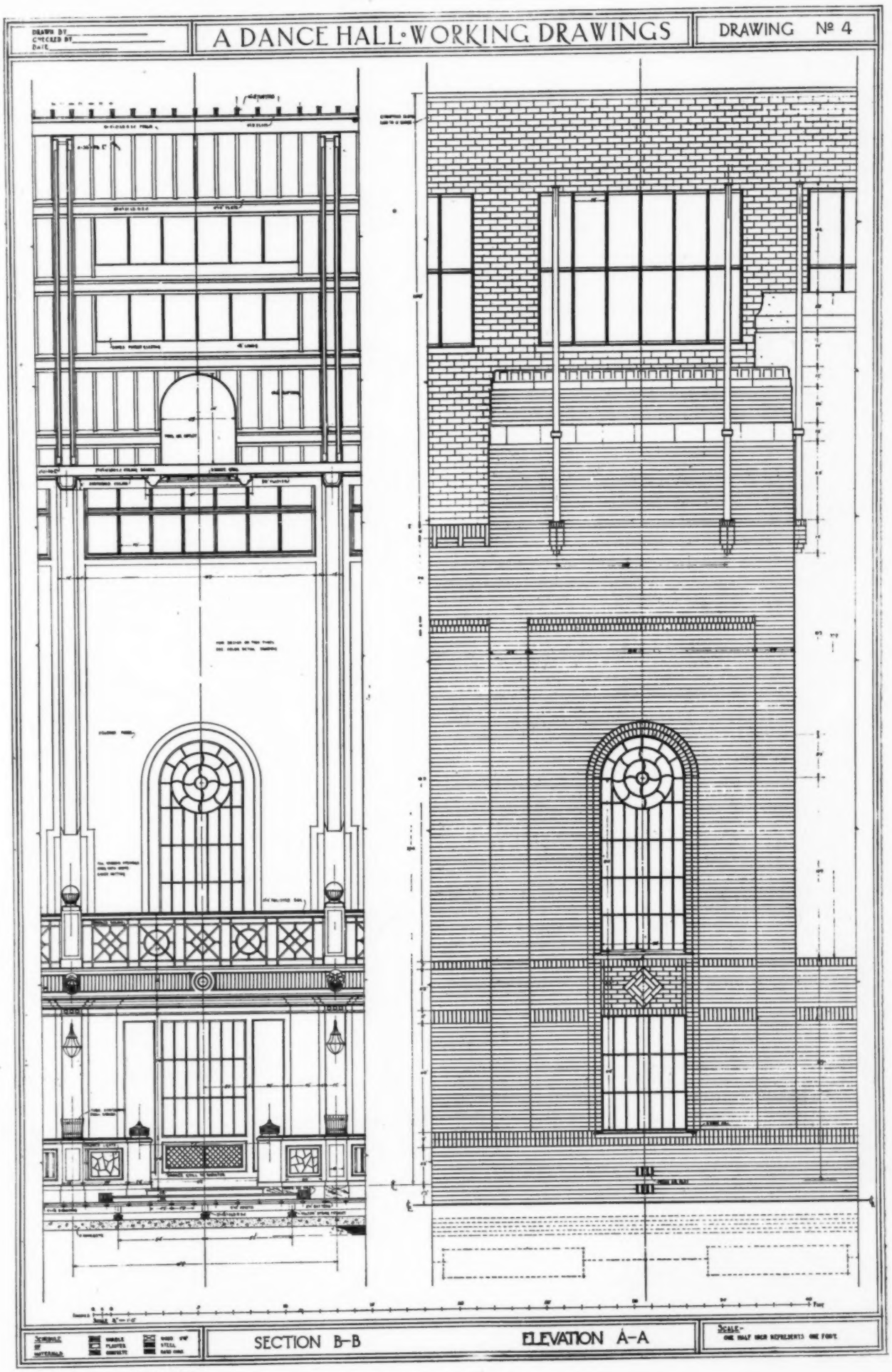


The Taj Mahal, Agra. From a Drawing by Mr. FRANK LISHMAN, F.R.I.B.A.



Design for a Dance Hall. By Mr. A. E. Cameron.
[Awarded Grissell Gold Medal and £50.]

R.I.B.A. Prizes and Studentships.



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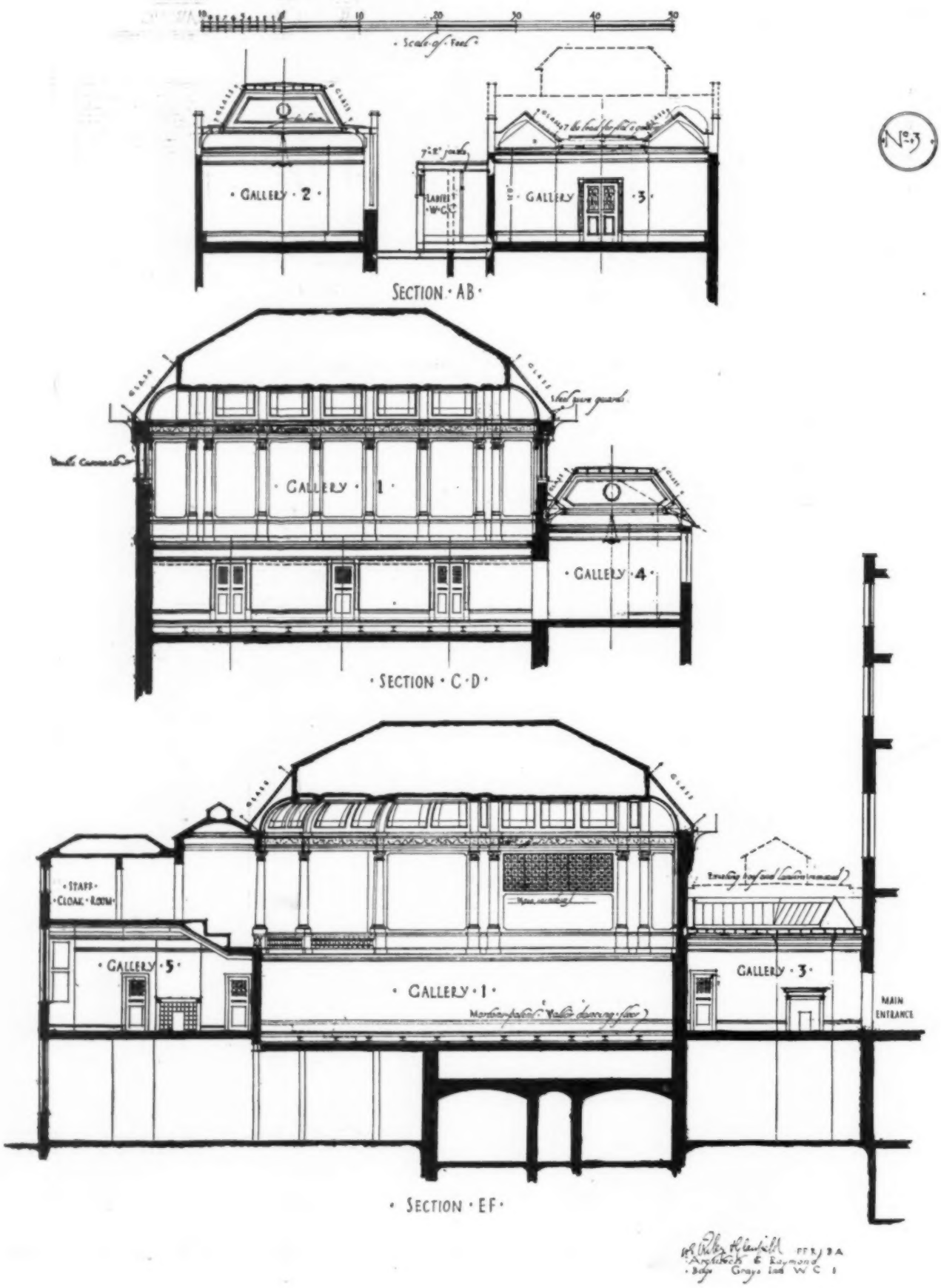
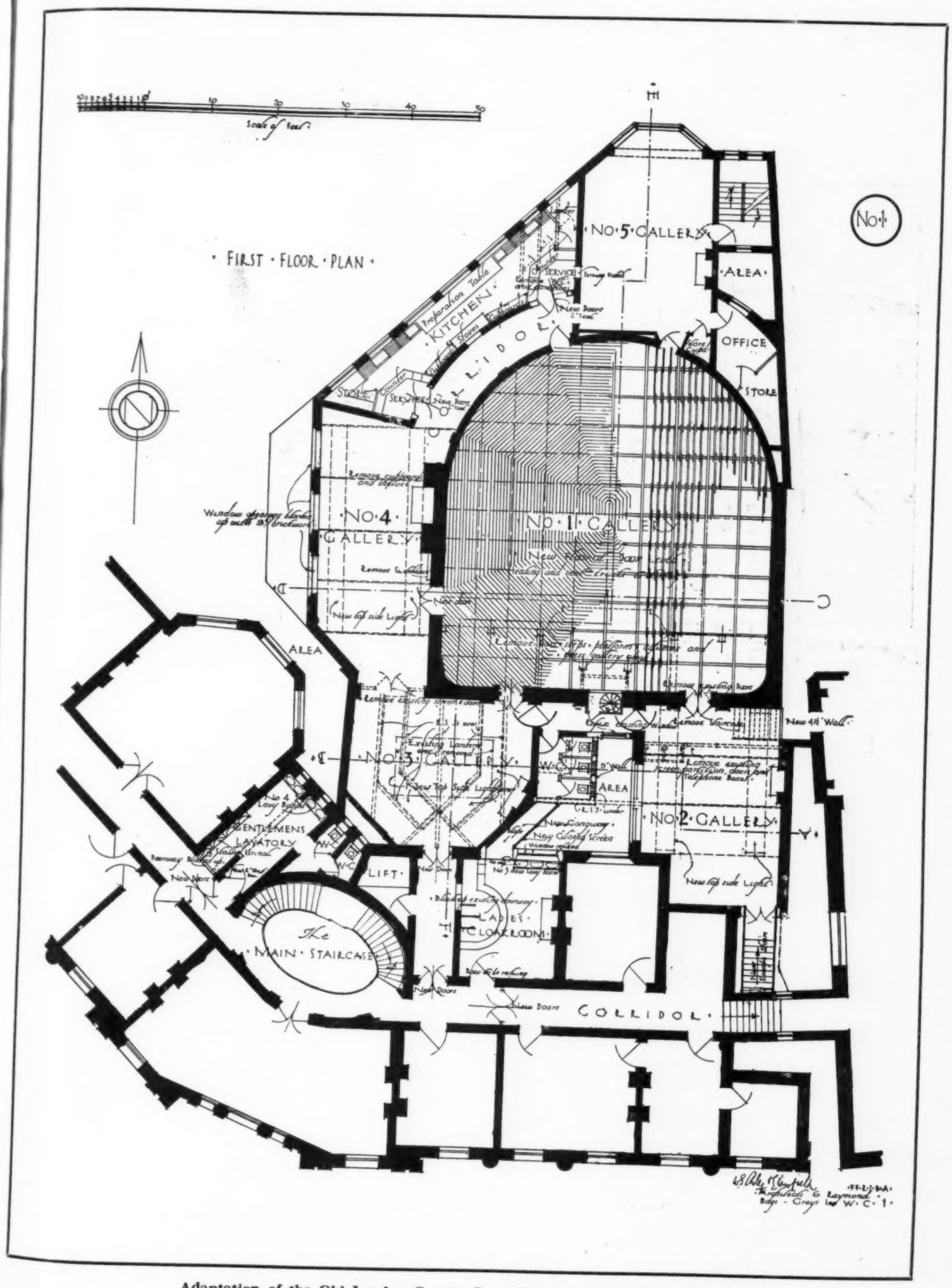


Adaptation of the Old London County Council Hall to Picture Galleries

MESSRS. W. E. RILEY & GLANFIELD, FF.R.I.B.A., Architects. (*See p.* 146.)



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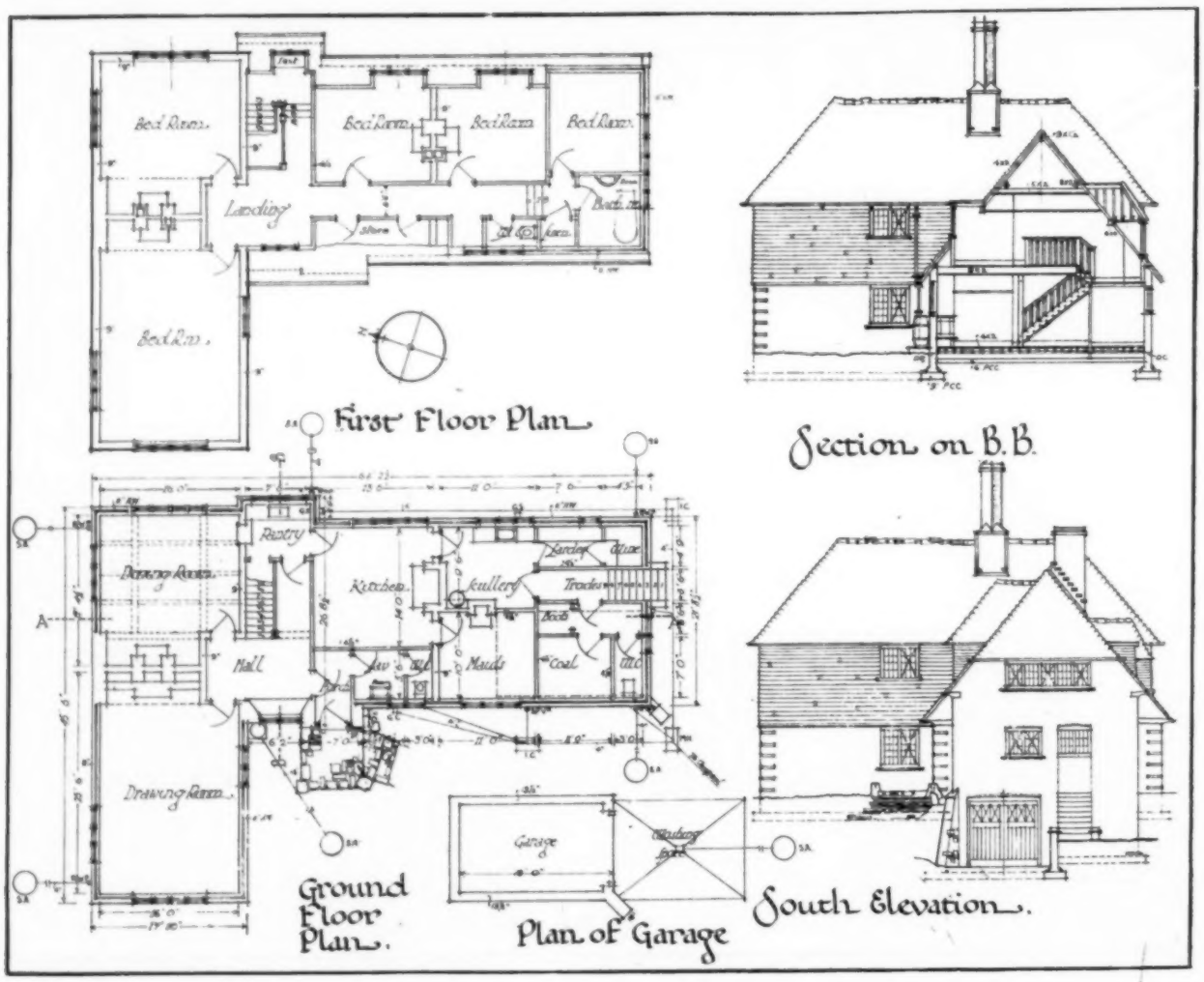


"Conway," Byfleet. MR. GERALD WARREN, M.S.A., Architect.

ARCHITECTURAL EDUCATION

We have received the following letter from Professor Lionel Budden, of Liverpool University School of Architecture :—

Sir,—I have just seen Mr. William Davidson's letter in your issue for December 26. As his observations raise various controversial questions, I should be grateful if you would permit me briefly to reply to them. Before joining issue with Mr. Davidson I would thank him very sincerely for the too flattering compliments he is good enough to pay me.

Now for the points which he makes :—

> "*We are by nature, probably, more individualistic than any other nation, and the danger of the new system*" (*academic training*) "*would be to reduce the practice of architecture to a matter of mere intellectual adroitness.*"

In the nineteenth century the pupilage system was relieved of the discipline of tradition and we then saw what unfettered individualism could achieve in our art. We may be pardoned if, before the spectacle of our Victorian cities, we now feel a little surfeited and even sickened with the indigestible fruits of æsthetic egotism. Beyond question, individuality is a quality that characterises all vital architectural work—but not at the expense of everything else. We have to-day to recapture a right sense of proportion in these things, and we are, I believe, much more likely to do so through the agency of the academic schools than through any number of independent architects' offices.

Because the academic system of education in architecture aims at offering the most complete technical equipment there is no reason to conclude that it is calculated to develop "mere intellectual adroitness." The whole aim of the system is to stimulate the creative and appreciative faculties. In providing the best environment and placing the fullest knowledge at the disposal of the student, this is its primary object.

> "*We have seen in other walks of life* (*Law, Medicine, and the Church*) *that the tendency of mere academic education is to sterilise the imagination.*"

I am not competent to speak of the effect of academic education on the Church. But as far as the Law is concerned, I would question whether judges, barristers, and solicitors have, since legal courses were established in universities, generally exhibited a marked decline in imagination? The facts regarding Medicine appear to controvert Mr. Davidson's statement altogether. Nearly all the great discoveries of the last hundred years in medical science—discoveries commonly involving a special kind of imaginative prevision—have been made by men academically trained. Whilst the sort of imagination necessary in architecture is visual and of another order than those which find expression respectively in the professional service of religion and in the pursuit and practice of the Law and of Medicine, it is not of a kind that is adversely affected, much less "sterilised," through being developed in an academic environment. On the contrary, the study of architecture in a university, as anyone who has had experience of it knows, is carried on under conditions more advantageous than can be offered by any other body. A university is the most catholic and liberal of all educational institutions—so much is implied in its very name; it can embrace the study of every art and of every science and has resources which no municipal or other technical organisation can command. It is not under these circumstances but in the narrow routine of pupilage in an architectural office that the imagination of students is cramped and deadened.

> "*It might be well to point out that the University education of school teachers has greatly reduced the value of M.A. and B.Sc. as degrees.*"

The standard of work required for these degrees has throughout the universities of Great Britain been steadily raised during the last twenty-five years. At Oxford and Cambridge alone, I believe, is the degree of M.A. still conferred on Bachelors of Arts without further study being required from them. Immediately after the war compressed courses of reduced length were temporarily instituted in the universities to enable ex-Service men to obtain academic qualifications on easier conditions. But all such concessions have now expired and university degrees are more and not less difficult to obtain than they were. The fact is very generally realised. It is therefore difficult to believe that qualifications, known to be of constantly increasing worth, can be losing prestige.

> "*Is it certain that a five years' intensive course at a University, supplemented by two vacational periods of six months in an American office, will produce the same high scholarly artistic quality of attainment as the more leisurely pupilage system, with its Continental measuring and sketching tours, studying the choicest examples of the works of the great masters?*"

Those students taking a five years' course who spend six months in selected American offices normally do so during the summer term and long vacation of their fourth year only. The other vacations are spent partly in English offices and partly in measuring approved buildings at home and on the Continent. So far from the measured study of architecture being neglected, it is pursued with remarkable diligence in academic schools. Only the field of research has altered, Renaissance rather than Mediæval work being studied as a general rule.

As to scholarship, Mr. Davidson must be well aware from the buildings and designs illustrated in the American professional journals, if from no other source, that there are very many more scholarly architects in the United States than in Great Britain. Indeed, the accusation now most commonly brought against American work is that it suffers from too much scholarship. However that may be, six months' experience in an American office of the first rank is experience gained in an environment in which architecture is treated as an art—an advantage not always so certainly to be found with us.

> "*One danger of the University system is that ultimately the provincial universities and schools will be staffed by men from the university with the greatest architectural reputation, and so the course will tend to become more and more standardised, to the detriment of natural and local traditions.*"

This has not happened in the case of the medical schools and there is no necessary reason why it should occur in the academic schools of architecture. Mr. Davidson's argument supposes that one school will acquire a pre-eminent position in every branch of architectural teaching. Why should it? The various medical schools are each famous for some special development of medical knowledge, each has its own great tradition and separate distinction. Architecture is a sufficiently large subject with a sufficient number of different aspects and branches for distinctive and equally celebrated schools to develop in the chief centres of population—and they are already doing so. National and local traditions have a far better chance of surviving on these conditions; they are more definitely crystallised and can be given, through the schools, a more conscious and consistent expression.

> "*Again, if all teachers of architecture are to be practising architects* (*the R.I.B.A. ideal*) *the profession will lose much on the scholarship and research side of its art.*"

From the Renaissance to the present time, from Alberti to Sir Reginald Blomfield, practising architects have made the most valuable and extensive contributions to the literature and scholarship of their art; and many of the most famous of them have combined teaching with their other activities. We shall gain, not lose, when we recognise that, in architecture, theory and scholarship divorced from practice are so much the poorer.

> "*The obvious conclusion of the whole matter is* (*as Professor Budden admitted*) *that here, as in France, work in the provinces will fall more and more into the hands of the speculator and builder.*"

Mr. Davidson implies that I admitted this would be the result if the academic system replaced—as it is doing—the pupilage system. But he has misunderstood me. What I did say, and what I now repeat, is that work in the provinces will pass out of the hands of architects and into those of the speculator and builder, if we permit a dominant school of architecture to be developed in London and to occupy there the ascendant position now held in France by the Ecole des Beaux Arts. The remedy for that evil is not to try to bolster up the obsolete and all but dead pupilage system in those parts of the provinces in which it still prolongs an ineffectual existence, but to assist the growth of vigorous provincial schools where they are most needed, under auspices which will give them the greatest prestige.

> "*Architecture is a creative art, and as such cannot be reduced to a matter of mere examinations.*"

Precisely. For that very reason the Royal Institute of British Architects has delegated so large a measure of qualifying powers to the "Recognised" schools of architecture. In these schools students qualify not merely through examinations, but on their general record of performance throughout a period of five years. The standard of competence achieved under the pupilage system has, however, for purposes of qualification, to be tested by arbitrary examinations and by those alone. It is, in fact, pupilage and not the academic schools which reduce professional qualification to "a matter of mere examinations."

> "*As Professor Budden says in his 'Theory of Architecture,' 'The world is full of people calling themselves artists, who have all the technique of externalisation and nothing to externalise.' Here lies the greatest danger of the academic programme. It is the inward vision which makes the artist, not mere technical excellence.*"

In endeavouring to show that my views on architectural theory subvert my opinions on architectural education, Mr. Davidson has concluded his quotation at a point convenient for his argument. I will complete the excerpt by adding the sentence which immediately follows in the original context: "But though such knowledge is unable to create the stuff of imagination, it is indispensable to the translating of that material into communicable form." In other words, no amount of inward vision will produce architecture, if the technical knowledge necessary to express the vision be lacking. And it is the function of academic schools to put the principles of this knowledge at the disposal of architectural students in a way and to a degree that an office cannot and should not be expected to do.

Obituary.

Major William Bakewell, F.R.I.B.A., of "Green Heys," St. Margaret's-at-Cliffe, Kent, aged 86.

York Architectural Society.

The York and East Yorkshire Architectural Society recently offered two prizes, value £5 5s. and £3 3s. respectively, for the best set of measured drawings, the subjects to be selected by the candidates and to be drawn in pencil. The competition was limited to members of the York Society, their assistants or pupils, and the age limit was 25 years. The first prize was won by Mr. A. Newton Thorpe, (Pugin Prizeman, 1923), of York. Mr. Alan E. Munby (Vice-President) offered a prize of £2 2s. for the best original design for a pair of wrought iron gates, suitable for a country lodge. This prize was won by Mr. A. Newton Thorpe. Mr. Wm. Oswald Noble (York) was placed second in merit and Mr. Richard W. Phillips (York) third. The Society are awarding two additional prizes of £1 1s. and 10s. 6d. respectively to these candidates.

THE THAMES BRIDGES

On January 19 the Special L.C.C. Committee on Thames Bridges received a deputation from the Royal Institute of British Architects, the London Society, the Town-Planning Institute, and the Architecture Club. The deputation was introduced by Lord Crawford, and consisted of :—

Royal Institute of British Architects—Sir Banister Fletcher and Mr. L. H. Bucknell.

London Society—The Earl of Crawford and Balcarres, Sir William Davison, M.P., and Mr. D. Barclay Niven.

Town-Planning Institute—Professor S. D. Adshead and Mr. W. R. Davidge.

Architecture Club—Mr. E. Vincent Harris and Mr. E. G. Culpin.

The proposals of the R.I.B.A. included :—

Waterloo Bridge.—As regards Waterloo Bridge itself, the possibility of underpinning having been referred to the Institution of Civil Engineers, the Royal Institute, while believing that it will be found possible to preserve a structure of such outstanding artistic merit, desire to express their confidence in the judgment of the Institution of Civil Engineers. Whether the eventual decision be to retain the present bridge, to widen it or to reconstruct it, the conflict between its traffic and that along the Strand is typical of the main difficulty underlying the problem of Thames bridges as a whole, namely, the impinging of the cross-river routes on the great volume of traffic running parallel to the north bank of the Thames. It would be most desirable if in this case a north and south route could be devised at another level from that of the Strand.

Waterloo Bridge to Blackfriars Bridge.—The existing inadequate provision for north and south traffic, and the great inconvenience at present experienced during the "rush hours" by workers in the City of London who reside south of the Thames, point to the need for a new bridge at a point near the Temple Station. The construction of a double-decked bridge at this point is therefore suggested, together with a tram subway from the Embankment under the eastern arm of Aldwych, utilising that in Kingsway and continued northward under Southampton-row. Should the Institution of Civil Engineers report in favour of underpinning Waterloo Bridge, and the London County Council decide in favour of that step, it might be found possible to deal with the traffic in this area without widening the latter bridge at all.

Waterloo Bridge to Vauxhall Bridge.—Without venturing to advocate any one of the many schemes which have been suggested for a new bridge at Charing Cross, the Royal Institute reiterate their conviction that there is a need for a road bridge at this point. With regard to Lambeth Bridge, it appears essential that the main approach from the west must be south of Victoria Station.

St. Paul's Bridge.—The attitude adopted in February, 1924, by the R.I.B.A., the Town-Planning Institute, the London Society, and the Architecture Club with regard to the proposal to build a bridge at a point opposite St. Paul's is unchanged. The four Societies concerned oppose and will continue to oppose the execution of such a scheme.

Finally, it is desired to urge the great importance in any bridge scheme of expert architectural treatment in regard to the design of the bridge itself, and of expert planning in regard to its approaches. The traffic which a bridge will attract, the methods to be employed for its disposal, and its effect upon the development of surrounding areas are problems which the skill of the town-planner has set itself to solve. Nor, in regard to the design of the bridge itself, is it enough for the Engineer and the Architect to work in water-tight compartments, the former concerned only with questions of construction and safety, the latter with those of superficial decoration and too often called upon merely to "ornament" a structural design already complete. A bridge is beautiful only if its artistic form is a true expression of its construction; and it is therefore essential, if London's bridges of the future are to be worthy of her great river, that æsthetic considerations in their design should be taken into account at the very beginning and should mature, *pari passu*, with the structural.

Lord Crawford pressed for a consideration of the traffic problem and a complete plan for the future development of London to proceed at the same time as the construction or the reconstruction of the various Thames bridges.

Mr. W. R. Davidge, the spokesman of the deputation, said the need for new bridges was considerable. The main principle was that new bridges constructed should help to divert traffic from the more congested points. By pass roads to divert traffic from the central portion of London were now in course of construction, particularly the North Circular and South Circular roads, and it was essential, to render these effective, that new bridges should be constructed at Lots-road and Woolwich. In the latter case an overhead bridge had been suggested. It should run from the level of Woolwich Common, passing over the river and the Albert Docks, and reach ground level at the new Barking by-pass road. Altogether it would be two miles in length.

On the west side of London an opportunity existed for the construction of a by-pass road along the line of the West London Extension Railway from Shepherd's Bush to Chelsea, which would have the immediate effect of diverting much of the traffic which at present congested Oxford-circus and Piccadilly. A new bridge at Barnes, and other bridges at Mortlake and Richmond, were already under the consideration of the Ministry of Transport, and, although those points were outside the London County Council area, there was no doubt that the construction of such bridges was essential.

With regard to the L.C.C. area, Mr. Davidge

Warden's Room, Clare College, Cambridge. SIR GILES GILBERT SCOTT, R.A., Architect.

(Illustrations of the exterior of this building were given in our issues for December 12, 1924, and January 9, 1925.)

said it was suggested that the continuation of the Chelsea Embankment to Putney Bridge would afford a suitable relief road to the present congested Fulham-road and King's-road, and would also afford an opportunity for the construction of a new bridge from West-hill, Wandsworth, to the new embankment at Hurlingham. The rebuilding of Lambeth Bridge was essential, but, in the opinion of the deputation, it was desirable that the approaches on the West side should be considerably improved so as to divert the traffic south of Victoria Station instead of congesting the narrow Horseferry-road and turning a fresh volume of traffic into Victoria-street.

With regard to the central Thames bridges, the deputation were of one opinion that a Charing Cross bridge was essential, and in view of the fact that the negotiations with the railway company must obviously take some time they pressed for an immediate commencement, and that, meantime, a general plan for the development of the South side of the river, including a re-alignment of the railway system on that side, should be taken into consideration. A new bridge at the eastern end of Aldwych would undoubtedly be necessary eventually. In the opinion of the deputation steps should be taken to forward the construction of such a bridge, which would materially assist the question as to the width of Waterloo Bridge, whether retained as at present or rebuilt.

It was also stated that the organisations represented by the delegation were willing to assist the Council in the preparation of plans and in other ways.

The Chairman thanked the deputation for their offer of assistance and said that he and his colleagues were greatly interested in the proposals and grateful for the assistance proffered. They were anxious to get an indication from the deputation as to what, in their view, was the order in which work should be given precedence.

The deputation replied that the bridges which could be constructed with the least difficulty were those outside the county, but of those inside the county, the Charing Cross bridge should have the earliest consideration; afterwards, the extension of the Chelsea Embankment and the other bridges connected with it. should receive consideration.

The Chairman then expressed appreciation of the suggestions put forward by the deputation, and said the special committee were dealing with bridges only; other committees were concerned with the specific matters which had been dealt with by the spokesman of the deputation; but he (the Chairman) would see that the expressions of opinion given on the other matters were conveyed to the appropriate quarters. He further stated it would be important to obtain an exact census of the origin and destination of the traffic crossing the existing bridges. Precise information of this matter would be of the greatest assistance when the question of the determination of the bridges had to be decided.

ST. PAUL'S CATHEDRAL.

The Royal Institute of British Architects call attention to the fact that in connection with the recent celebration of the bicentenary of Sir Christopher Wren, the Royal Institute of British Architects published a book on Wren and his work (including St. Paul's Cathedral), written by contributors, each intimately acquainted with the aspect with which he dealt.

As the profits of the sale are devoted to the St. Paul's Preservation Fund, possibly many people might consider that a pleasant way to help the fund would be to obtain this attractive and well-illustrated record, of which the title is, "Sir Christopher Wren Memorial Volume: 1723-1923." The sale of only one thousand copies of the five guineas edition would enable the R.I.B.A. to hand over a sum of 2,000 guineas (the Institute has already subscribed 100 guineas) to be acknowledged in *The Times* list in the name of each purchaser as a subscriber of two guineas.

The price is £5 5s., and orders, enclosing remittance, should be sent to The Librarian, R.I.B.A., 9, Conduit-street, London, W.1.

THE SOCIETY OF ARCHITECTS FOUNDED 1884

THE fortieth annual report of the Council of the Society of Architects was adopted at the annual general meeting, held on January 15. We take the following extracts from the report:

AMALGAMATION AND REGISTRATION.—After the provisional amalgamation agreement had been settled by the two councils and their legal advisers, it was submitted to and confirmed and ratified by both general bodies, by overwhelming majorities. This agreement entailed the obtaining of a supplemental charter by the R.I.B.A. and revisions to the by-laws which, in so far as they affect the Society, provide generally speaking for the transfer of its members to the R.I.B.A. with the same privileges as they possess in the Society, with the added advantage of membe ship of a Chartered Institution. The provisional agreement becomes absolute when the consent of the Privy Council is given to the alterations in the R.I.B.A. charter and by-laws in the form approved by the Society, and as it is not anticipated that any opposition will be forthcoming it may be assumed that the amalgamation will commence early in 1925, and that the dissolution of the Society will follow within a comparatively short time. The whole of the work of the Society during the past twelve months having been carried on under the shadow of the approaching amalgamation and dissolution, most of it has necessarily been restricted to the settlement of its affairs and the closing down of those schemes which were in hand for the development and further extension of its activities.

MEMBERSHIP.—The total membership on October 31, 1924, was: Fellows, 250; Members, 1,176; Honorary Members, 13; Retired Members, 48; Licentiates, 295; and Students, 141—a total of 1,933, being an increase of some 230 over the previous year.

FINANCE.—The auditors' report and balance sheet for the year ended October 31, 1924, shows that the financial position of the Society has been strengthened during the year. There is a balance of income over expenditure of £326, and a total estimated surplus of just over £8,000, after making provision for doubtful debts and depreciation, and without taking into account the appreciation in the investments or the market value of the premises. Although the object of the Society is not to make a profit but to administer its affairs in advancing the interests of the Society and its members, it is satisfactory to find that this has been done without exceeding its income.

EDUCATIONAL.—The half-yearly entrance examinations continue to be conducted on lines which are found in practice to be of educational value to the candidates, some of whom have testified their appreciation of the methods, and in particular, to the experience gained from the oral examinations. As in former years, the chief weakness of the candidates is in architectural design, and it is here that the work of the correspondence design course is of particular utility. This course has been running since January 1, 1923, under the personal direction of Mr. R. A. Duncan, A.R.I.B.A. During that time, it has earned a great measure of confidence and support, not only among the junior members of the Society, but also among unattached architects. During the first few months, thirty-seven students joined the course. Of these, eight were Licentiates of the Society, twenty-six were students, while three were unattached. The present membership is seventy-three, out of whom thirteen are unattached. The average number of designs sent in for any one subject is eighteen to twenty, which means an average of two designs per annum per person. Constant attempts are made to encourage a regular routine of work, and such allowance and reductions in fees as are granted to prize winners are conditional upon their having completed at least fifty per cent. of the designs set during the year. Among the students following the course are several who had failed in design in the Society's Membership examination, and who had been recommended by the examiners to join the course. Out of these, two have since sat again for the examination, and both have been successful in this subject. The Society's monthly journal, *Architecture*, has not merely maintained but increased its standard of literary excellence and production, under the editorship of the Assistant Secretary, Mr. C. A. Barman. The handling and development of the business side of the journal became somewhat of a problem, owing to its increasing circulation outside the Society, and arrangements were made for its publication by Messrs. Jonathan Cape. Pressure has been brought to bear upon the Society by subscribers to arrange for *Architecture* to continue its existence after the amalgamation of the Soci ty with the Institute. The matter is engaging the attention of the Council, which is in sympathy with the proposal.

PROFESSIONAL PRACTICE.—Although little or no progress has been made by the R.I.B.A. joint conference with the build rs on conditions of contract, the Society has proceeded with the revision of its form of building contract, for which there continues to be a considerable demand, not only from architects, but also from public authorities. A new draft form of contract has been prepared, but in view of the amalgamation proposals with the Institute it has not been thought desirable to issue it. The R.I.B.A. sub-committee on competition regulations, on which the Society was represented, has completed its work and the Councils of both bodies have agreed to the revised conditions which have since been published by the R.I.B.A. They apply equally to the Society, which would have published them also, but for the amalgamation scheme. The arrangement for a conference between representatives of the Surveyors' Institution and the Society in connection with certain details of the Landed Property Practitioners Registration Bill, referred to in the last report, became unnecessary as the Bill was dropped for the time being.

CONCLUSION.—In concluding this, the fortieth and last report of its kind, the Council wishes to acknowledge its great indebtedness to the general body of members individually and collectively, without whose loyal support it would have been impossible to carry through to a successful conclusion the negotiations with the Institute which have resulted in the attainment of one of the Society's objects, the unification of the profession, and the bringing of another—the Statutory Registration of Architects—nearer to accomplishment. Such a consummation is well worth the price to be paid by the Society which, when it ceases to exist, will hand over its work to an enlarged and strengthened body of architects pledged to do its utmost to carry on and achieve that for which the Society was brought into existence.

MEETINGS

MONDAY, *January* 26.

Architectural Association.—Miss M. Jourdain on "Architect as Designer of Furniture." At 34, Bedford-square, W.C.1. 7 p.m.

TUESDAY, *January* 27.

National Federation of Building Trades Employers.—Annual Dinner. At Hotel Victoria. 7.15 p.m.

London Association of Builders' Foremen and Clerks of Works.—Annual Dinner. Holborn Restaurant. 6.30 p.m.

WEDNESDAY, *January* 28.

Royal Society of Arts.—Mr. C. A. Baker on "Electrical Equipment of the London County Hall." At 18, John-street, W.C.2. 8 p.m.

THE ELEMENTS OF ARCHITECTURAL DESIGN

On January 15 Professor J. H. Worthington, A.R.I.B.A., lectured at the Victoria and Albert Museum on "The Elements of Architectural Design as Illustrated by English Buildings in the Eighteenth Century."

In the course of his remarks Professor Worthington said there was a movement for a Renaissance in architecture, and for the first time in many years architects were being trained in a systematic manner. The Press was also taking an interest. Of all the arts architecture was the most alive to the people as a whole; it touched life at every point. It was important that the buildings being put up to last for all time should be worthy of their generation. Any reasonably well-built building was, as the Americans put it, "up for keeps." Architecture was concerned with both material and spiritual ends; it was functional and constructive. It was one of the few arts where they got the practical and the ideal combined. In building three qualities were needed, the economic, the structural and the æsthetic. With regard to the æsthetic side, there was nobody to control it in England, and the sooner a Bill for Registration was passed the better it would be for the interest of the public. Architecture could not be learnt in ten or even in fifty years. They all ought, however, to know something of architecture, and he would urge them to get rid of that facile and misleading saying, "Fools build houses, wise men live in them." An architect had to be a man of great vision and possess the gift of organisation. His haphazard and casual selection was becoming a thing of the past. There were many capable young architects, however, who found it very difficult to get started within a reasonable period.

The main object of architecture was how to obtain simplicity out of perplexity. This called for tremendous powers from the architect. The architect tried to get down to the essence of things. "Except they became as little children, they could not enter into the Kingdom of Heaven." He had chosen the eighteenth century for the purpose of his lecture owing to its simplicity. At the present moment they were all anxious about the most important building that had ever been built in England—St. Paul's. It had been said that Renaissance should be spelled Wrennaissance. Wren, although he passed through stirring historical times, was of a sweet disposition, an admirable Christian, and a great wit.

The lecturer then showed a number of interesting slides and said the first, Chelsea Hospital, had breadth and dignity, and was the product of a great brain. Hampton Court, rebuilt from Wren's design by William III, was a four-square brick building with finely-proportioned windows. The domestic sense had been well kept and it was more satisfactory than Versailles or Fontainbleau. Wren was one of the greatest advocates of brick who ever lived, and the brick of the eighteenth-century England was one of the most beautiful materials ever used. Wren set a fashion which was followed throughout England. One reason was because people like Gibbs, a pupil of Wren, wrote books on architecture which showed the country designers how the simple elements of Wren should go together. Wren and his followers always had a standard of proportion for windows. It was not a question of size so long as they were all in proportion one to another.

In the great periods of building the crafts all had their component parts. The gates, for instance, were not made away from the building, but were constructed by the local smith. Architecture differed from all other arts inasmuch as it was co-operative as opposed to, say, music or sculpture. Its strongest motive was co-operative. The architect had got to be a leader and give a stimulus to the crafts, as had been the case in the past.

At the Victoria and Albert Museum his students always connected the details of craftsmanship with the buildings from which they originated. They were working out the plan of a village in the manner of Wren. It was planned in the manner of English life in the seventeenth century. The plan showed the simple units of the village, the church, the school, the shops, &c. The doorway, which had been used for the squire's house, also the staircase, had actually been taken from originals in the Museum.

The lecturer, after showing various slides which depicted the village scheme of the students, showed a view of a country house (architect unknown), which, he said, was a studied composition; it was neither haphazard nor "bitty."

An architectural garden of Sir Edwin Lutyens was then shown, and Professor Worthington said it constituted a work of simple harmony and space value. A Frenchman had once said that all an Englishman had to do to make a garden was to make his gardener inebriated, and if they followed in plan his devious wanderings they had a Jardin Anglais.

In conclusion, the lecturer said he hoped architecture would in the future become the mother of the crafts as it had been in the past.

ENGLISH HOMES*

Mr. Avray Tipping's volume dealing with late Tudor and early Stuart work as exemplified in many famous English mansions, though actually published before his work upon Early Tudor domestic architecture—noticed in our pages recently—is in the nature of a sequel carrying on the description of an evolution in architecture. Gothic art gave place to the imported patterns of the Renaissance very slowly and though forced to retreat did so in regular order.

So slowly, in fact, was the conquest made that the manner of building and artistic detail throughout the period (1558–1649) now under consideration hardly includes any evidence of direct relationship with the work of contemporary masters in Italy. Modifications in planning and detail were being made, but, though important, they were by no means revolutionary. The idea of comfort found its increasing expression in the further internal subdivision and articulation of the house considered as a place both of domestic labour and of recreation. The great hall was often robbed of some part of its magnitude in favour of an extended kitchen suite, and of its height in order that a "great chamber" might be contrived in the upper story. Entertainment on a vast scale necessitated the provision both of extensive reception rooms in which guests might meet and even take exercise under cover in inclement weather, and of kitchens and store rooms proportionate to the demands made on the catering department. The preparation of home foods which had been necessary under mediæval conditions of agriculture was still carried on on an extended scale, and with greater attention to the provision of suitable accommodation for the various processes involved.

The entrance to the house usually led into a passage, "the screens" partitioned off the end of the hall, with the buttery and kitchens opening either directly into the screens on the side remote from the hall or into a kitchen passage communicating with this part of the house. Plans given in the book show increasing freedom in planning in this respect and some changes were not altogether for the better. The decreasing use of the hall as the essential domestic apartment is indicated in John Thorpe's plan of a house for "Ld. Clanrickard" (Fig. XI) where it is placed endwise through the house with windows only in its narrow ends. This method of lighting, less favourable to the creation of pleasant and cheerful effects than was the older manner of lighting from windows in the broad side, may be considered only a minor defect, but the disposition of rooms in connection with the hall emphasises its character of principal access passage rather than of principal dwelling room. The old English hall was in the early stages of its transformation into the inartistic and draughty entrance passage with which we are all too familiar and which still, by an extreme stretch of courtesy, bears the same name. The immense importance of eating and drinking in Elizabethan days is indicated by the author in his description of the usual kitchen offices at Kirby, where the pantry was displaced from its position near the screens though the "buttery" remained. Unlike the kitchen offices the chapel tended to disappear. "Before the Reformation a chapel was one of the most recognised and important adjuncts to a house of any pretension. But Thorpe habitually left it out, except where he planned ambitiously, as at Buckhurst. Great noblemen must needs have a chaplain among their household, and therefore their houses had a chapel, inherited in the case of Knole from the days of the Archbishops" (Fig. 304). But it formed no part of the normal manor house plan of the Early Renaissance period. Beccles Hall, Norfolk, was an exception to this rule, however, for not only was a small chapel included but also secret passages and chambers for hiding the Catholic priests who officiated there contrary to the law of the land.

The careful repair of this house under the direction of Mr. Detmar Blow receives appreciative mention in the text, the new works being undertaken in accordance with the desire "to preserve undiminished, and with as little renewal as possible, every part spared of the buildings which told anything of the life and times of the Woodhouses and their successors in ownership. On the other hand, a convenient, workable and agreeable house was required, such as may consort with the elaborate habits and intelligent ideas of to-day."

Chequers, Buckinghamshire, now the country home of British Prime Ministers, is of topical interest on that account. It has also been subjected to repairs in recent times which have been made the occasion for reinstating "fixtures and furniture" that had, fortunately, been preserved in attics and lumber rooms to which they had been relegated during a period of "Gothick taste." Here, as elsewhere throughout the book, the illustrations do full justice to the subject.

Knole House, Kent; Wollaton Hall, Nottinghamshire; Montacute, Somerset; and many other mansions are described and pictured and, though the discretion of the photographer may have contributed to the effect, the wonderfully consistent state of repair of the various houses cannot fail to strike the reader. Architectural taste seems to run towards reverence for the antique rather than to new creative effort at the present time, and though there are certain obvious limitations inherent in this backward gazing attitude of mind, the skill and sympathy that have been involved with it in preserving these historic English homes removes it altogether from the plane of "Gothick Revival" triviality. Such houses are worthy of the best of care and conservation.

Mr. Avray Tipping is to be congratulated on having set forth their beauty in a thoroughly satisfactory manner.

*"English Homes, Period III, Vol. 1, Late Tudor and Early Stuart, 1558-1649." By H. Avray Tipping, M.A., F.S.A. (London: George Newnes, Ltd. Price £3 3s. net.

A.A.S. & T.A. Meeting.

Under the guidance of Mr. J. A. Gould, the Branch Chairman of the Metropolitan Branch of the Association of Architects, Surveyors and Technical Assistants, an instructive meeting was recently held at the Nightingale-lane section of the City Railway. The party was met by Messrs. H. H. Hunt and A. M. Herd, of Messrs. Brand & Sons, the contractors for that particular section of the work, who thoroughly explained the plans and details of the construction and conducted the visitors over the whole of the underground workings. A vote of thanks to Messrs. Brand was proposed by Mr. Gould at the conclusion of the visit.

TOWN-PLANNING INSTITUTE

MR. W. T. LANCASHIRE (President) took the chair at a meeting of the Institute held at the Institution of Mechanical Engineers on January 15, when Mr. W. R. Davidge read a paper on "London Traffic and Thames Bridges."

Mr. Davidge said that no one could safely dogmatise as to the proper method of dealing with the daily increasing volume of London traffic, and on the question of Thames bridges they knew that even the most distinguished engineers might be at variance. Any suggestions, however, put forward by the Institute on this thorny subject were sure of sympathetic consideration and might probably form a useful basis for further action. The lecturer proceeded to deal with the early history of the Thames and the dates of the building of the various bridges. He pointed out that in 1831, when London and Greater London had a population of only one and three-quarter millions, there were twelve bridges across the Thames and one road tunnel; whilst to-day, when the population was over 7½ millions, there were only 16 road bridges across the Thames up to and including Kingston. He next touched on the growth of road traffic and gave details of the schemes in Greater London which the Ministry of Transport had in hand, and put forward proposals which he said were set out for consideration and discussion as a tentative beginning of what might eventually become a plan for the development of Greater London. These proposals were as follows:—

New Up-River Bridges.—There could be little doubt that new Thames bridges would eventually be needed at both Twickenham and Teddington, the latter affording a very desirable direct route from Richmond Park to Bushey Park and Hampton Court, and thus affording an opportunity of by-passing much of the summer and holiday traffic which at present crowded the streets of both Richmond and Kingston and at the same time providing one of the pleasantest ways out of London.

Completion of Chertsey road by New Bridges at Mortlake and Richmond.—The new Chertsey-road was already well advanced within the district of Chiswick, but the road would be of little use until the new river bridge connecting with Mortlake was completed. Richmond Bridge, in its present position half-way up the hill, combined with its difficult gradients and its narrow width of 25 ft. between the parapets, was entirely unsuitable for through traffic, although it was to be hoped that the old bridge would long be preserved as a thing of beauty. For through traffic, the Ministry of Transport were wisely proposing the construction of an entirely new bridge just north of the present railway bridge, the new road by-passing both Richmond and Twickenham on its way to Chertsey. In view of the considerable amount of local traffic, one or more link roads were desirable on the Twickenham side to divert traffic on to the new route.

New Bridge at Barnes.—A valuable suggestion had been made by Mr. Rees Jeffreys that a new road should be constructed from the eastern end of the Great West-road (Brentford by-pass) at Chiswick High-road in a south-easterly direction to a point just east of Barnes Station, thus linking up with Putney and by the south circular road at Clapham with the South and South-East of London. This proposal would involve a new road bridge across the Thames about one-sixth of a mile north of Barnes Railway Bridge.

New Embankment Road: Upper Mall, Hammersmith.—The present outlet from the new Chertsey-road into the Chiswick High-road could only be regarded as a temporary measure, and much as many of them would like to preserve intact the old world charm of Chiswick Mall and the Upper Mall, Hammersmith, it was certain that sooner or later a new river embankment would be required outside the existing river wall, thus providing a direct road outlet as far as Fulham Palace-road. A connection from the new Chertsey-road with Goldhawk-road was also desirable.

Continuation of New Chertsey-road over District Railway to Cromwell-road.—The continuation of the new road eastward could probably best be done by covering in the line of the District Railway between Barons Court and West Kensington, and linking up with the west end of Cromwell-road, which would then form a new and unobstructed way out of London, avoiding the present congestion in Hammersmith.

Possible New Bridge at Ranelagh.—The possibility of a new bridge crossing the Ranelagh Club grounds and linking up Barnes Common and Richmond Park with Fulham had been considered, but in view of the difficulty of finding a satisfactory outlet on the Fulham side into either Lillie-road or Fulham-road, the suggestion had been put on one side in favour of the following extension of Chelsea Embankment.

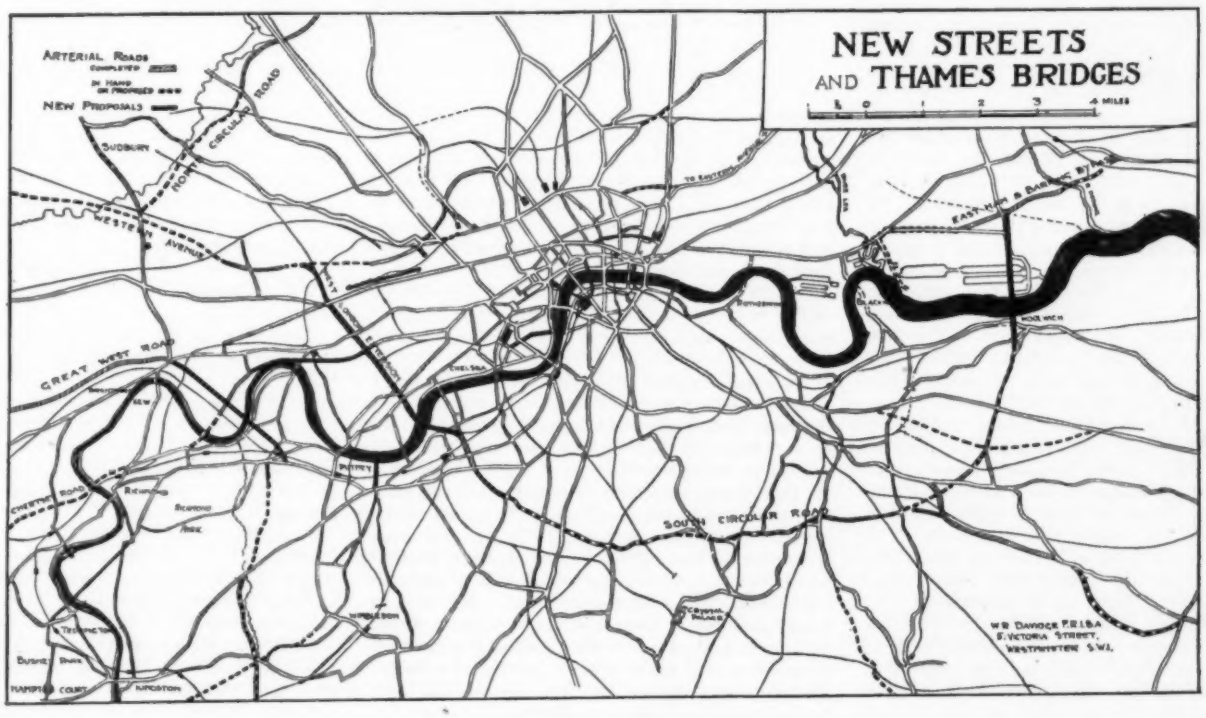
Extension of Chelsea Embankment to Putney Bridge.—One of the most important proposals to be considered for improving the southern approaches to London was the continuation of Chelsea Embankment to Putney Bridge. This would in the first instance relieve the King's-road and Fulham-road, and enable traffic to go direct from Putney along the north bank of the river right into Westminster and the City.

New Bridge at Hurlingham.—It would also afford an opportunity for a new road from West Hill, Wandsworth (in line with Wimbledon Park-road) crossing the river by a new bridge at the east side of Hurlingham, thus bringing the traffic from the Portsmouth-road on to the new Chelsea Embankment and so into London, by-passing both Putney and Wandsworth, and affording a direct outlet from London to Wimbledon Common.

West London By-Pass and Lots-road Bridge.—In very many places in other parts of London the railways had taken possession of the best sites for roadways, but it was not too late to cover over the railway where in cutting and construct a broad highway 100 ft., or preferably 150 ft., in width. The best example was the case of the West London Extension railway which ran in cutting from Shepherd's Bush to Chelsea, and then across the Thames to Battersea. This route afforded an admirable opportunity for the construction of a West London by-pass road from the new Western-avenue north of Shepherd's Bush to Chelsea and across the river by a double deck rail and road bridge at Lots-road to Battersea, where, *via* Latchmere-road and the West side of Clapham Common, it would afford direct communication with the South Circular road which has already met with official approval. This was one of the most essential routes, and would form a by-pass road of immense value for all traffic coming from the north or west of London to the coast. It should be noted that the West London Extension Railway was very little used, and there were only a few trains a day between Clapham Junction and Addison-road, and none at all for several hours in the afternoon.

New Road from Wandsworth Bridge to Trinity-road.—The improvement of Wandsworth Bridge by the construction of a direct road over or under the South Western Railway and linking up with Trinity-road had long been necessary, and should be put in hand at an early opportunity.

Possible Nine Elms Bridge.—A new bridge at Nine Elms, between Vauxhall and Chelsea, connecting with Wandsworth-road and Clapham-road at Bedford-road, would give an entirely new route *via* King's-avenue to Streatham and beyond, possibly to the north end of the Croydon by-pass road. The consideration of



this bridge might well be deferred for the present, although every opportunity should be taken to widen and extend the present roads along this route.

Rebuilding of Lambeth Bridge.—The rebuilding of Lambeth Bridge was long overdue, and opportunity should be taken to form new approaches on the west side, and a new road *via* Page-street, Vincent-square and Warwick-street to the southward of Victoria Station, connecting *via* Pimlico-road with the Chelsea Embankment.

South Side Embankment: Westminster to London Bridge.—The mud flats which existed at low tide along the south side of the Thames at its widest point near Waterloo Bridge had always offered a tempting opportunity for the town planner, not only to secure a fine improvement, but also to reclaim a large and valuable area for commercial purposes on the south side. The site of the existing Victoria Embankment was equally uninviting in the 'sixties of the last century, and it was only the pressing need for finding a route for the new low level sewer that brought the matter to a head. To-day the still more pressing needs of London traffic demanded that this obvious by-pass route, from Westminster to London Bridge, should not be neglected, especially if, as seemed to be the case, the recoupment values would meet the larger part of the necessary expenditure. The route was not free from difficulty, owing to the varying levels of the bridges along the south shore and the position of the new County Hall with regard to the river, which would probably necessitate road traffic entering the Embankment from Belvedere-road instead of passing in front of the County Hall.

The City Embankment.—As was well known, a public quay 40 ft. in width, provided through the foresight of Sir Christopher Wren through the whole length of the City from Blackfriars to the Tower, actually existed for 150 years and only finally disappeared in 1821. The warehouses which had since sprung up on the site of the quay could not, of course, be removed, but there was no reason why a quay should not again be constructed outside the existing buildings, with a public thoroughfare at a higher level, thus eventually forming a continuation of the existing Thames Embankment from Blackfriars to Tower Bridge.

Railways and Railway Bridges.—The question of railways and railway bridges could not be eliminated when considering a general plan for the future of London traffic. Drastic changes would be necessary in the railways of London in the near future, and with the electrification of all suburban services the need for railways to remain perched overhead among the chimney pots largely disappeared, and with it the need for the two railway bridges at Charing Cross and Cannon-street and the long unlovely brick viaduct which spanned between them on the south side. There appeared to be no reason why the electrified lines should not drop underground near London Bridge and pass under the river to Cannon-street or Blackfriars, then to Charing Cross and out again at Victoria, thus completing the loop in both directions. If there were insufficient room along the present Thames Embankment for additional tunnels, the new embankment on the south side would provide ample room for both the Brighton and South Eastern sections of the suburban lines. The present railway viaduct would then be free for an overhead roadway uniting the new Charing Cross Bridge with London Bridge. The railway viaduct from Holborn to Herne Hill should also eventually become available for an overhead road. It would also be remembered that there were derelict stations and lengths of unused line, such as that from Greenwich Park to Nunhead, which might usefully be given up to new thoroughfares. The suburban services were still far too slow compared with main line trains, and many more stations would yet have to be eliminated.

Charing Cross Bridge.—The new Charing Cross Bridge depended on the elimination of the existing railway bridge, so that, desirable as it undoubtedly was, they were likely to have to wait until the general plan of the railway were settled and if, as part of the scheme, the overhead railway viaduct also disappeared, an opportunity would at last arise for the completion of this great project. An essential requirement in the case of any new cross-river bridges between Westminster and the City was that the cross traffic should not impede the east and west traffic. This formed a fatal objection to the projected St. Paul's Bridge, and it was clear that the approaches of the new Charing Cross Bridge must pass either under or over the Strand. An over-bridge with approaches reaching ground level near the Cavell Memorial was therefore indicated. On the southern side the bridge would pass over York-road, allowing for the formation of a station yard along the west side of Waterloo Station, similar to that on the other side, and then descend to Waterloo-road.

Waterloo Bridge.—The controversy which was at present raging on the subject of Waterloo Bridge was regrettable, and it was to be hoped that means would be found to preserve intact this fine bridge, allowing, of course, for the rebuilding of the one pier which had subsided, and the two arches affected. As far as information was at present available, underpinning of the other piers should certainly be possible, and this course appeared to have been adopted when the Victoria Embankment was built. The question of widening the bridge beyond its present limited width of 42 ft. was an important one, which, however, was not likely to arise unless the bridge were rebuilt. The provision of another bridge at the eastern end of Aldwych would obviously remove the necessity for widening Waterloo Bridge.

New Bridge at Aldwych.—This position had some advantages over that of Waterloo Bridge, and if constructed in a position approximately opposite to Australia House, could be arranged not to interfere with east and west traffic by the simple procedure of the east-going traffic following along Aldwych whenever so directed by the police, leaving only the west-going traffic to use this part of the Strand, any vehicle being at liberty to turn left on to the new bridge as required. On the south side this bridge should terminate at Stamford-street, with a curved approach to Waterloo Station.

Road Bridge or Tunnel at Woolwich.—The Woolwich Free Ferry had been in operation since 1889, replacing a previous ferry owned by the Great Eastern Railway. A foot tunnel of 11 ft. diameter, similar to that completed at Greenwich in 1902, was opened in 1912, to overcome to some extent the inconvenience to pedestrians of the frequent interruptions of the ferry service by fog. The interference with the road traffic, however, was often serious, and the annual cost of the ferry was heavy. The time has arrived when a more suitable and permanent road-bridge or tunnel at Woolwich must be taken into consideration.

Improved Approaches to Victoria Docks and New Bridge over River Lea.—With a view to improving the approaches to the Victoria Docks and East London generally, the Ministry of Transport, on the advice of Sir Henry Maybury, had prepared an excellent scheme for a new bridge over the Lea at Canning Town and a new high level road approach to the western end of the Victoria Docks, now one of the most congested spots for commercial traffic in London. At present, when the long-suffering streams of traffic were not held up by a swing bridge, they were kept waiting by a level crossing—and sometimes by both.

Proposed Purfleet Tunnel.—During the War, a temporary pontoon bridge was constructed between Gravesend and Tilbury, and it would be remembered that it was with the object of providing a permanent tunnel or other crossing at this point that the Ministry of Transport last year instructed Sir Maurice Fitzmaurice to report upon the matter. The report was, however, to the effect that a tunnel at this point would meet with serious difficulties, and that, from the engineering point of view, a better site for a cross-river road tunnel would be found just east of Purfleet and Dartford, situated on the chalk edge of the London basin. The Ministry, acting on this advice, had now under consideration a preliminary scheme for a road tunnel at Purfleet.

SIR L. MACASSEY said that the lay-out for the bridges of London were treated as local propositions, whereas on the Continent they were treated as ligaments in an area tremendously greater than the actual area of the city concerned. Then, again, in London, the cost of bridges was treated as a local charge, whilst on the Continent the State contributed. He did not think they would get the required bridges in London whilst this state of affairs continued, and thought the cost should be thrown upon the whole area included under the London Traffic Act. As to the immediate need, they wanted a new road bridge at Charing Cross.

MR. C. STILGOE emphasised the importance of considering bridges in conjunction with the proper planning of new arterial roads. If the proposals put forward by Mr. Davidge were carried out, it would mean the removal of many of the blots found on the present maps.

SIR H. MAYBURY said the author was right when he said that in the past they had thought parochially, and one of the reasons why they had not had a complete scheme was because they had thought in water-tight compartments. As the result of recent legislation, he hoped they would take a bigger view and do something in a reasonable time worth while.

MR. REES JEFFREYS pointed out that a big step forward had been taken by the formation of the new traffic authority, because for the first time matters would be considered regionally. They must, however, obtain financial unity also.

MR. NIVEN suggested that an important need in London was a low level road from the river under the Strand, Holborn, and Marylebone-road, to the North.

MR. E. WILLIS (Chiswick) supported the views of the author, and pointed out that the utilisation of the West London Railway as a roadway would solve a great difficulty.

MR. DAVIDGE, in reply, said that his reading of the past history of London showed that any suggestion for improvement which had good in it never fell on stony ground, although it might be a long time before it was carried out.

Town-planning Schemes.

The following is a list of local authorities other than those upon whom town planning is compulsory that have passed resolutions during the quarter ended December 31, 1924, deciding to prepare town-planning schemes :—

CHESHIRE.—Hyde T.C., Macclesfield T.C.

DERBYSHIRE.—Buxton T.C., Chapel-en-le-Frith R.D.C., Shardlow R.D.C.

DEVONSHIRE.—Plympton St. Mary R.D.C.

ESSEX.—Harwich T.C.

HERTFORDSHIRE.—Berkhamsted R.D.C.

KENT.—Blean R.D.C. (second scheme), Sevenoaks R.D.C.

LANCASHIRE.—Abram U.D.C., Crompton U.D.C., Milnrow U.D.C., Whitefield U.D.C., Sefton R.D.C., Leigh T.C.

MIDDLESEX.—Friern Barnet U.D.C.

NOTTINGHAMSHIRE.—Arnold U.D.C., Eastwood U.D.C., Bingham R.D.C., Stapleford R.D.C.

SURREY.—Croydon T.C. (fifth scheme).

WARWICKSHIRE.—Warwick R.D.C. (second and third schemes).

YORKSHIRE (WEST RIDING).—Springhead U.D.C., Hunslet R.D.C. (fourth scheme), Tadcaster R.D.C.

The following are the Preliminary Statements approved by the Minister up to January 1, 1925 :—

Altrincham U.D.C., Beckenham U.D.C. (three areas), Bradford T.C. (two areas), Cambridge T.C., Clayton U.D.C., Cleethorpes U.D.C., Coulsdon and Purley U.D.C., Croydon T.C. (two preliminary statements embracing three areas), Ealing T.C., Earsden U.D.C., Elland U.D.C. (two areas), Great Crosby U.D.C., Great Yarmouth T.C., Halifax T.C. (two preliminary statements embracing three areas), Hanwell U.D.C., Kingston-upon-Hull T.C., Leamington T.C., Leeds T.C., Linthwaite U.D.C., Margate T.C. (two areas), Middleton T.C., Mitcham U.D.C., Rochford R.D.C., Sheffield T.C. (five areas), Stratford U.D.C., Wallasey T.C. (two areas), Willesden U.D.C., Woodford U.D.C., York T.C.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially to legal matters.

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or better still, in typescript.—ED.

Corrugated Iron.

[REPLY TO "ROOF," JANUARY 9.]

SIR,—In a smoke-laden atmosphere I should give the life of corrugated iron as four years without attention if unpainted, or eight years if painted, and a further period of about five years after repairs in the latter case. In a clear atmosphere the similar periods would become six, twelve, and seven respectively.

"ECONOMY."

Roof Truss Materials.

[REPLY TO "STUDENT," JANUARY 9.]

SIR,—The following rough-and-ready rules may be of service to "Student." Depth of principal rafter: Square of length in feet multiplied by span in feet, divided by cube of thickness in inches, multiplied by .96, giving the depth in inches.

Depth of tie beam in inches: Divide length of longest unsupported part by the cube root of the breadth, and multiply by 1.47.

Depth of struts: Square roof of the length supported in feet, multiplied by the length of the strut in feet. Take square root of this and multiply by .8, giving the depth in inches.

The thickness of the truss is first decided according to a suitable stock size, and the above then follows.

"RULE OF THUMB."

Clay Foundation.

[REPLY TO "SAFETY FIRST," JANUARY 9.]

SIR,—Clay is susceptible to changes in temperature in the English climate within 4 ft. of the surface, and foundations should always be taken down to at least that depth in clay soil. Clay is an excellent bottom to build on provided it is without the range of variable temperature, but within that range it is very treacherous.

Only a few days ago I heard of a case where a drain was completely severed during the hot summer owing to the cracking of the clay upon which it was laid, and how much more may a heavy house suffer under similar circumstances?

"DE PROFUNDIS."

Metal Shelving.

SIR,—Can you or any of your readers tell me what advantages, if any, are held by metal shelving for bookcases, over wooden ones? No doubt they are fire-resisting, but so, surely, are stout hard wood ones. Perhaps some of your readers with experience of library design will be able to point to other and more important advantages.

"LIBRARIAN."

Insurance Terms.

SIR,—The terms Internal Hazard, External Hazard, and Auto-Hazard are new to me and I should be glad to have them explained if any of your readers could oblige.

"PUZZLED."

Unveiling Ceremony.

SIR,—I am superintending the erection of a war memorial (monumental), and should be glad of any information relative to the ceremony attendant upon unveiling.

"MEMORIAL."

Gable Walls.

[REPLY TO "BUILDER," JANUARY 9.]

SIR,—It is assumed that the gable wall referred to belongs entirely to "Builder." If, therefore, he grants a divided moiety of the wall to the adjoining owner, making the wall a party-wall between his property and the adjoining property to be built by the grantee, he is entitled not only to monetary consideration, but to arrange terms with the adjoining owner as to mode of user of the wall, and method of carrying out the proposed work.

"Builder" should bear in mind in settling the terms that the wall, though belonging to him, will, in the event of the proposals being carried out, be subject to an easement or right to have it maintained as a dividing wall between the two tenements. The law implies the grant and reservation in favour of the grantor and grantee, respectively, of such easement as may be necessary to carry out the common intention as to the user of the wall.

If the property is in the London area the provisions as to party walls, between adjoining owners, in the London Building Act, 1894, should be looked up.

"AUTHORITY."

SIR,—If the wall in question is already a party wall, either of the party owners may make use of it in any way that does not infringe local building regulations or endanger the structure, but if the wall is on one property, the neighbour, though he is not enforced to build a wall of his own, may not use that wall for any structural purpose, as in building-in ends of beams or joists, or pinning in flashings, or even by plastering the wall within his building. The effect is practically to enforce him either to build a wall of his own on his own land, or to acquire by purchase or agreement, half the wall as his share of a party wall which it will then become. The method by which the value may be arrived at will vary according to circumstances. Such a value should include the value of the area of land upon which half the wall stands and also the value of the wall itself, which, if it is of recent date, may be found from the priced quantities of the building of which it formed a part, or if it is an old wall, by a sum which will represent that proportion of the cost of a similar new wall which its present condition warrants. Such a value can be arrived at by mutual agreement, or by an independent arbitrator, but the original owner is in no ways bound to agree to his wall being made a party wall.

"NEIGHBOUR."

Obstruction.

SIR,—I shall be extremely obliged if you would kindly give me your views on the following matter:—

During the last two or three years I have been building some houses under a Housing Scheme. The first contract consisted of 16 houses, and the plans and specification were prepared by a local architect. Whilst excavating I came across some rock; no mention of removing the rock was specified in the specification. The Clause in the specification was as follows:—

Excavator.

"Surface soil.—Excavate the site for block and surrounds as shown on the drawings."

"Trenches.—Excavate trenches for footings of all walls to the depths as shown or deep enough to ensure firm and solid foundations."

The second contract consisted of eight houses, and the plans and specification were prepared by the local surveyor, and in such specification the removal of rock was inserted. The clause in this case was as follows:—

"Obstructions.—The Contractor will be required to remove roots of trees, hedges, fencings, rock, &c., that may be necessary, and shall make good all outlets and inlets to the site."

I shall therefore be glad if you will kindly let me know whether I was responsible for removing the rock in the first contract, as according to the specification you will observe no mention of rock is inserted, but in the second contract it is inserted.

"J. O."

[Much depends on the nature of the contract. It is assumed from the information given that this was an entire or lump sum contract, and the question is, whether the excavation in rock constitutes an "extra" on the first contract. The question does not arise in the second contract.

Now the word "extra" in a contract designates all works not expressly or impliedly described in the specification and plans. It would appear, on a consideration of the clauses of the specification quoted in the question under reply, that the excavation in rock is impliedly described. It would be somewhat difficult to give any other meaning to them, seeing that works, which although not expressly described are necessary for the completion of an entire or lump sum contract, are not "extras." It does not matter that they are not mentioned in the specification. In general, an employer is not liable for work impliedly included in that contracted for or necessary for its completion, nor for work performed voluntarily by the contractor without request, or, again, for work as to which the condition precedent preserved in the contract has not been complied with.

Unless there are specific guarantees or definite representations made by the employer or his agent as to the nature of the soil, a contractor cannot abandon his contract, nor claim for extra cost, if he subsequently finds rock or other soil that adds to the cost of carrying out the work. It is his business to satisfy himself on this point at the outset. See Bottoms *v.* York Corporation (1892) Vol. II, Hudson on Building Contracts, 208.]

Fireproofing Thatching.

[REPLY TO "THATCHER," JANUARY 9.]

SIR,—Thatch may be effectively fireproofed by spraying both the finished under surface, and the finished outer surface, especially the former, with a solution of sulphate of ammonia, carbonate of ammonia, lump borax, boracic acid, lump alum, and water, in the proportions by weight of 28, 14, 7, 7, 14, and 500 respectively. Another method is to dip bundles of the reeds as used in the same solution. The former method is that more usually employed, and is probably the best and safest method, if thoroughly carried out.

"BROTHER THATCHER."

Knotting.

[REPLY TO "SOUTH COAST," JANUARY 9.]

SIR,—I should be very loath to condemn in general terms all varieties of patent knotting, but having had one or two unfortunate experiences of some such goods I have resolved for the future to specify only a knotting solution of shellac in methylated spirits. In a recent large country house job, the knotting was all thoroughly carried out with a patent knotting, and before three months had passed the knots were showing through as yellow as a guinea—a most horrible blemish on an otherwise first-class job. Practically the only cure for such an evil is to coat with gold leaf and repaint, and the expense of such a process is sufficient to warn off the intending user of anything but the good old and tried "home-made" article. We do at least know what it will do, and we know what is in it.

"CONSERVATIVE."

Joists.

[REPLY TO W. PARRY JONES, JANUARY 16.]

SIR,—Answering the question propounded in your last issue, and supposing the two joists are not connected, it may be said that the lower joist will at its mid 5 ft. develop flexure, as the load is imposed, at a greater rate than the upper joist; there will be a space between the two at the centre, and the maximum movement of each will be the same with equal maximum stresses resulting on each of the four flanges. If the two joists are connected, the same maximum stress will be developed in the top and bottom flanges only, and the total deflection in this case will be sensibly less than in the other. The above statement does not consider the effect of the girders' own weight, which slightly modifies the ultimate result.

"W. H. T."

[Replies to "K. & R. T. Co." and "Flora" have been forwarded by post.]

THE BUILDING TRADE

ARBITRATION IN BUILDING DISPUTES

By W. T. CRESWELL, Lic. R.I.B.A.; Assoc. (late Fellow) Surveyors' Institution, F.R.San.Inst., Barrister-at-Law.

No. III.—Appointment of Arbitrator or Umpire. (1).

AN arbitrator is a person chosen by the mutual consent of parties in difference, to determine the matter or matters in controversy between them. (See Bacon's "Abr Arbiti" (D)).

In the event of a dispute arising, any person may act as arbitrator, provided that he has sufficient skill and ability, and does not suffer from any particular disability. A disability may include blindness, deafness, dumbness, madness, idiocy, infancy and outlawry.

If the arbitrator is not named in the submission, then it is advisable that some person who holds an official position be named as arbitrator, or to nominate an arbitrator. In Palgrave Gold Mining Co. *v.* M'Millan (1892), A.C. 460, Lord Hobhouse said, "It is very common in England to invest responsible public officials with the duty of appointing arbitrators under given circumstances. Such appointments should be made with integrity and impartiality." It is not required, where a third person is named to nominate an arbitrator, that notice of the intention to make the nomination be given to the parties to the dispute, unless it is so provided in the submission.

The parties to a reference are entitled to refer to (1) a single arbitrator; (2) two or more arbitrators; and (3) to arbitrators and an umpire, to decide between them in the event of their disagreement. The appointment of the arbitrator should invariably be dealt with in the submission.

The 1909 R.I.B.A. form of contract was the result of lengthy negotiations between the Royal Institute of British Architects, the Institute of Builders, and the National Federation of Building Trade Employers. It is published by the former institute, and at the present time is undergoing revision with a view to its publication and issue in a new form, in, it is thought, a very short time. The form, in its arbitration clause, provides for the appointment of a single arbitrator in the first instance, and "in the event of his death or unwillingness or inability to act," a person to be appointed by the President of the R.I.B.A. on the request of either party. In the circumstances, more often than not, the architect is appointed arbitrator; and sometimes the architect of the work in which the dispute has arisen is appointed.

Building disputes are usually referred to architects, engineers, or surveyors. It is difficult, however, to obtain in one man the qualifications and experience necessary for an arbitrator in building disputes, *i.e.*, of lawyer, architect and surveyor. But, whoever it is that is appointed, it is universally admitted that he should have been trained to take first one side and then the other, and to have acted as often for the contractor as for the building owner. He should be a strong arbitrator, one with a force of character, for his powers when called upon to arbitrate are extremely wide, and give him complete control over all matters referred to him, and within his jurisdiction. He is not only a judge of law, but also of fact; and his decisions are final.

Reference to a Single Arbitrator.

When the submission, or arbitration clause in a general agreement, does not determine the method of appointing an arbitrator, then Section 2 Schedule 1 (*a*) of the Arbitration Act, 1889, provides for the reference to be made to a single arbitrator. No stamp is required on appointment unless it be made by deed.

Section 5 (*a*) of the Act becomes operative in case of failure to agree upon a single arbitrator. It is as follows: "Where a submission provides that the reference shall be to a single arbitrator, and all the parties do not after differences have arisen concur in the appointment of an arbitrator"; any party may serve the other parties with a written notice to appoint an arbitrator, and if the appointment is not made within seven clear days after the service of the notice, the Court or a judge may, on application by the party who gave the notice, appoint an arbitrator who shall have like powers to act in the reference and make an award as if he had been appointed by consent of all parties.

It would appear that "all the parties to the agreement to refer" must concur in the appointment of an arbitrator; so, if one party dies and his executor refuses to concur, and there is nothing expressed in the agreement to the effect that it is binding on the executors or administrators, it is not a failure to concur within the meaning of the section. See in *re* an arbitration between Percival and others (1885) 2 T.L.R. 150.

In *re* Eyre and Leicester Corp. (1892) 1 Q.B. 136, a dispute had arisen within the submission, and the parties had failed to concur in the appointment of an arbitrator after proper notice had been given, Lord Esher said (Lopes, L. J. agreeing), that the Court could exercise no discretion in determining whether to appoint or to refuse to appoint an arbitrator under Section 5; but the words "may appoint" in the Section meant "must appoint." Kay, L. J., whilst taking the same view, said that a case might arise where it would be necessary to exercise some discretion, and that in such cases the word "may" in the Section might give a discretion to the Court.

In the case of the death of a single arbitrator, or when he becomes incapable of acting, or refuses to act, another one should be appointed under the terms of the submission; and if for any reason that cannot be effectually done, the Court will fill the vacancy.

Reference to Two Arbitrators.

When the submission or agreement provides for the reference to be made to two arbitrators, one to be appointed by each party, then, unless the submission expresses a contrary intention, Section 6 of the Act provides as follows:—

(*a*) If either of the appointed arbitrators refuses to act, or is incapable of acting, or dies, the party who appointed him may appoint a new arbitrator in his place;

(*b*) If, on such a reference, one party fails to appoint an arbitrator, either originally or by way of substitution as aforesaid, for seven clear days after the other party, having appointed his arbitrator, has served the party making default with notice to make the appointment, the party who has appointed an arbitrator may appoint that arbitrator to act as sole arbitrator in the reference, and his award shall be binding on both parties as if he had been appointed by consent.

Provided that the Court or a judge may set aside any appointment made in pursuance of this section.

This section would appear to apply also when the submission is to two arbitrators, with power to appoint a third. See SS. Den of Airlie Co. *v.* Mitsui & Co. (1912), 106 L.T. 451.

In general, references are usually to a single arbitrator; and, if the submission comes within the Act, and there is no other mode of reference, it is impliedly taken as a reference to a single arbitrator. Many think it preferable to refer to a single arbitrator if he can be agreed upon by the parties at the outset; for where two or more arbitrators are appointed, each one is apt to favour the side appointing him, and, omitting to give that judicial impartiality that is necessary to the issue, act rather as advocates than as judges. See in *re* Templeman and Reed (1841), 9 Dowl, 962

Reference to Three Arbitrators.

Section 6 of the Act does not apply where the submission provides for three arbitrators, one to be appointed by each of the parties, and the third by the two chosen; but Section 16 of the Administration of Justice Act, 1920, a section which is to be construed as if it were included in the Arbitration Act, 1889, provides that unless the submission expresses a contrary intention:—

(*a*) If one party fails to appoint an arbitrator for seven clear days after the other party, having appointed his arbitrator, has served the party making default with notice to make the appointment, the party who has appointed an arbitrator may appoint that arbitrator to act as sole arbitrator in the reference, and the award of the arbitrator so appointed shall be binding on both parties as if he had been appointed by consent.

(*b*) If, after each party has appointed an arbitrator, the two arbitrators appointed fail to appoint a third arbitrator within seven clear days after the service by either party of a notice upon them to make the appointment, the Court or a judge may, on an application by the party who gave the notice, exercise in the place of the two arbitrators the power of appointing the third arbitrator.

(*c*) If an arbitrator, appointed either by one of the parties, by the two arbitrators, or by the Court or a judge, refuses to act, or is incapable of acting, or dies, a new arbitrator may be appointed in his place by the parties, arbitrators, or Court, or judge, as the case may be.

When, however, there is a reference to three arbitrators, and there is a refusal on the part of one of the parties to appoint, the Court cannot do so. In R. Smith & Service and Nelson & Sons (1890), 25 A.B.D. 545, there was an agreement to refer disputes to three arbitrators, one to be appointed by each party, and the third by the two so appointed. One party refused to appoint an arbitrator; and it was held that the Court had no power either under or apart from the Act, to order him to do so.

In Taylor *v.* Denny, Mott & Dickson (1912), A.C. 666, the parties to a contract were an American firm not resident in England, as sellers; and an English firm as buyers. Differences arose, and the parties signed a submission to two arbitrators, one to be appointed by each of them, and with power to nominate an umpire. The arbitrators failed to appoint an umpire, and the buyers served them with a notice to do so; but they could not agree on an umpire, so the buyers applied to the Court to appoint an umpire on a summons to which the arbitrators were respondents. The sellers were left out of it, they not being within the jurisdiction of the Court. The sellers' arbitrator contended that he was not a proper party to the summons, but it was held that the objection to the form of summons was bad, and that the arbitrators were properly brought before the Court. This case was affirmed in Denny, Mott & Dickson *v.* Standard Export Lumber Co. (1912), 2 K.B., 542 C.A.

Reference to Arbitrators and an Umpire.

The submission may name a person to act as umpire in case of disagreements between the arbitrators. The usual course adopted, however, is to leave the appointment of an umpire to the arbitrators themselves; and, in that case, they should make the appointment before going to the reference. If no provision is made for the appointment of an umpire, then Schedule I (*b*) of the Act applies, which is as follows: "If the reference is to two arbitrators, the two arbitrators may appoint an umpire at any time within the period during which they have power to make an award." If the arbitrators refuse to appoint an umpire after any party having

served them with a written notice to make the appointment, the Court or a judge may, on application by the party who gave the notice, appoint an umpire.

In Ringland *v.* Lowndes (1863, 33 L.J., C.P. 25), Quarter Sessions appointed a person to act as umpire, subject to his acceptance of the appointment; there was no acceptance, and it was held there was no appointment.

Where an umpire is to be appointed by two or more arbitrators, they must all be present and concur in the appointment (see Eads *v.* Williams (1854, 4 Deg. M. & G. 674), Acceptance of the office would appear to be necessary both by the arbitrator and umpire, in order to perfect the appointment. Although the First Schedule of the Act already quoted substitutes an umpire for the arbitrators where the authority of the arbitrators has determined by lapse of time, or they have given notice in writing that they cannot agree, it is usually considered desirable that the arbitrators shall sit with the umpire and hear the evidence in one investigation instead of two, thus saving delay and expense. Further, the parties have the benefit of all, *i.e.*, arbitrators and umpire, on the whole of the matters referred.

GUIDE TO HOUSING ACTS*

OUR housing legislation has by now become so complicated that very few have had the energy to keep abreast with its developments; there exists, therefore, a necessity for some such reference books as this, where those who propose to build can hunt their own particular difficulty. The volume contains the texts of the Acts in question and goes minutely into the matter of financial aid in every variety of scheme, and it also includes a consideration of the present position in labour and materials and similar problems. In the preface the author insists that the foremost proof of the unexampled evolution in national opinion and sentiment concerning housing is the passing of the 1924 Housing Act with its fifteen-year programme for the building of 2½ million houses. He then pictures Mr. Wheatley and Mr. Neville Chamberlain and their alternating periods of office, that remind one of the two figures in the Swiss barometer, who behave in the same way. Not every one will share the author's optimism as to the future of the Wheatley measure, for it is hard to see how two measures so much opposed in principle can really be run in double harness. In theory it is possible, but in practice administrative preference will always be given to one or the other, and one cannot help wondering how many of the fifteen-year programme houses will materialise. There is one point, however, that is of considerable importance, and which hinges upon the ability of a Department of State to override, when it so desires, not only the spirit of an Act of Parliament, but even its letter—for what private individual is going to the expense to test the legality of decisions emanating from Whitehall? Mr. Aldridge tells us that the present Minister will be urged by an earnest desire to deserve the title of a great Housing Minister. Like all titles to greatness, this can only be earned by sacrifice, and the Minister will be hard put to it to stand against the temptation of "showy" results, and of telling statistics. The people cannot at the time see what is being done, and when they hear that such a number of houses has been built, they cheer; but whether they will still feel like cheering in thirty years' time depends upon Mr. Chamberlain's vision and action in keeping up the standard of design, lay-out and density. The Housing and Town-Planning Council could be of infinite service if it made it its especial province to look after the scheme from the widest point of view and put its weight definitely on the side of the less showy but more important side.

*"Guide to the Administration of the Housing Acts, 1923 and 1924: A Supplement to the National Housing Manual. By Henry Aldridge. (London: National Housing and Town-Planning Council.)

CONCRETE COTTAGES FOR HOUSING SCHEMES

REPORT OF THE MINISTRY OF HEALTH COMMITTEE.

THE Committee appoin ed by Mr. Wheatley, the late Minister of Health, has presented its second interim report on "new materials or methods of construction which are or may be available for the building of houses for the working classes." The report, which deals with concrete construction, was issued recently as a White Paper (Cmd. 2310, 3d. net). Sir Ernest W. Moir, Bart., is the chairman of the Committee.

The report states: It is the considered opinion of the Committee that, broadly speaking, the various forms of concrete construction offer a very effective supplement to the normal methods of building. Not only is the house built in concrete satisfactory, but it utilises labour and material in plentiful supply. The Committee therefore recommend that local authorities should, wherever necessary, include in their housing programmes houses built of one of the various forms of concrete construction, and by so doing not only meet the demand for houses, but also absorb labour that is largely unemployed.

A large proportion of the suggestions submitted to the Committee relate to the application of concrete to house building, and after examination of a great number of proposals the Committee are of opinion that it is desirable to present at once a second interim report dealing with this form of construction.

The use of concrete for the construction of dwellings in the form of pre-cast blocks is not a new or untried method. Since the war large numbers of satisfactory concrete dwellings have been erected in which several methods of construction have been employed. Most of these schemes, however, rely to a lesser or greater degree upon the employment of those expert trades in the building industry which are most scarce and which are essential to the requirements of the present building programme in materials of construction other than concrete. There is a sufficient body of experience to show that comfortable, dry, and healthy dwellings, satisfactory in appearance, can be constructed of concrete. Suitable aggregates, representing five-sixths or more of the ingredients required, are to be found in most districts. They require no skilled labour to prepare, and the quantity available is generally plentiful. The getting, crushing, screening, and preparation of the materials would afford occupation suitable for men now unemployed.

One of the best methods, which would substantially supplement the output of houses, is the use of concrete placed or poured *in situ* between wooden or steel shutters. Poured concrete of a special character in which the proportion of cement to suitable aggregate is reduced to 1 in 9 is incorporated in housing schemes in Holland. Effective buildings have been constructed by this method up to three stories in height with walls only about 8 in. thick, in which there is a high percentage of voids, and consequent lightness of structure. In these houses the walls are finished externally by cement rendering or roughcast, and inside by ordinary commercial plaster. These plastered surfaces, together with poured concrete, form the outer wall, and no air space is required. In Holland, where plasterers are available in sufficient quantity to keep pace with the other employees engaged on the houses, this form of structure is possible. In Great Britain, however, the plasterer is one of the most scarce kind of employee.

In order to minimise plastering as far as possible, in many cases a fair finish can be produced by carefully stopping all holes, rubbing down and applying a cement wash with a brush, and so preparing a surface sufficiently well to take paper or distemper. Concrete floors, partitions, and roofs have been satisfactorily constructed in some of the existing housing schemes in this country, and linoleum or cork carpet on concrete floors has been in use with hard wear for upwards of 20 years in office blocks. Such floors may be more expensive than wooden ones, but they do not necessitate carpentry work, and the use of steel shuttering would probably avoid the use of plaster work.

The question of an efficient system of easily-moved shuttering is one of the greatest importance in connection with poured *in situ* concrete houses. Your Committee have several such systems before them, but we submit that the last word in this connection has not been said, and we suggest for your consideration that the offer of some substantial premium for the best and most economical system of shuttering capable of being erected, though not necessarily constructed, by unskilled labour should be made.

There should be no prejudice against a concrete building. Concrete is entirely reliable from a strength point of view. It can be mixed and placed either with the ordinary shovel or by mechanical appliances, and the jointing materials are thoroughly well distributed.

The Committee's conclusions are as follows:—

(1) That houses built of poured *in situ* concrete are satisfactory habitations.

(2) That this method of building which economises in bricklaying and plastering enables a building to be completed rapidly and almost entirely by other than skilled labour.

(3) That various improvements have been introduced in the way of giving a pleasing outside surface and a smooth inside surface to such buildings, with a minimum of labour drawn from the skilled building trades, and that further improvements in these directions should be carefully studied and assisted.

(4) That this method of construction promises more houses and more permanent structures than any other alternative to brick construction which it has had before it, and with the least call on the skilled building operatives. The maintenance costs of such houses will compare favourably with those of any houses.

In Part II of the report the Committee deals in detail with slab construction, block construction, mechanical plastering, and large slab construction. They emphasise the importance, whether for poured or block concrete, of ensuring that the ingredients used, and the manipulation of them, are satisfactory, and their recommendations are based on the assumption that careful attention must be given to these points. The present report on concrete is not to be regarded as exhaustive, as various systems are still being brought to the Committee's notice, and if necessary a further interim report will be submitted.

The report is signed by all the members of the committee.

L.C.C. Westminster Technical Institute.

A course of lectures of special interest to those concerned with the current quinquennial valuation in London will be given at this Institute by Captain W. T. Creswell, Barrister-at-Law, Associate (late Fellow) of the Surveyors' Institute, &c. The lectures will be held on Wednesday evenings at 7 o'clock, and will commence on February 4. The lecturer will discuss in detail the problems arising in the quinquennial valuation now in progress, and students will be encouraged to bring the various difficulties which arise in their practice for discussion and solution.

The course of lectures will be based on the following syllabus:—

Foundation of the present law of rating; purposes for which money is raised; spending authorities; the principle of rating various classes of property; procedure within the metropolis and outside the metropolis; compounding of rates; the practice of rating; land; farms; commons; woodlands; sporting rights, &c.; buildings; dwellings; tenements; flats; shops; business premises; public houses and breweries; factories, mills, warehouses, &c.; railways, waterworks, gas works, electrical undertakings, &c.; rivers, canals, harbours, docks and wharves; tramways, &c.

TRAINING OF BUILDERS

[FROM A CORRESPONDENT.]

LAST week local building industries committees, where they are in existence, received a White Paper issued by the Building Industry Committee set up by Mr. Wheatley last October. This contained instructions which are of considerable importance to the industry, as well as to the nation, in so far as they are designed to assist in providing more and better-trained labour for house building.

One section of the instructions, however, has been the subject of some plain speaking on the part of those who believe that the future of the building industry depends upon the exercise of trained intelligence for its direction and "upon the application of the principles of science and art for its successful prosecution," for in the midst of the many detailed instructions there is sandwiched a somewhat vague recommendation that local building industry committees should consider "whether in places where day-time training is not at present given steps can be taken to provide it." It is also suggested that every inducement should be given to those youths who do not become apprentices until after the normal age of entry to supplement their training by attendance at suitable evening classes, where such are available.

Educationists look in vain in this report for the same enthusiastic spirit that characterised the education schemes that were placed before the Joint Industrial Council for the Building Industry four years ago. It will be remembered that the Education Committee, in March, 1920, reported that in their opinion the haphazard methods which prevailed in the past required considerable amendment if the ideal and supremacy of craftsmanship were to be realised and maintained. They recommended, therefore, that definite training of a more technical character should be provided, especially in view of the provisions of the "Fisher Act" of 1918, and that the nature of the curriculum to be given should be determined in consultation with representatives of employers' and operatives' organisations: "It is only by a close liaison between education and industry that the necessary advance in technical training can be secured, and this is vital if this country is to maintain its industrial supremacy in the world."

Since that time comparatively little has been done, except in certain progressive areas. Classes in building are organised by a minority of local education authorities, but many more expressed their readiness, in reply to inquiries made by the Board of Education last September, to provide still more extensive facilities. With the exception of a few courses at university institutions and of associations in the main designed for the help of architects, all existing facilities for building education are in the hands of local education authorities and are subsidised from State funds. In the North there has been successful co-operation between the Worshipful Company of Plumbers and the Lancashire County Council, but with a little encouragement how much more could be done!

Although taken in the aggregate the number of building classes provided in England and Wales appears to be large, an analysis provided officially indicates that attendance often falls off during the session, and that many of the classes are attended more by architects' pupils and young men in estate offices or learning structural or civil engineering than by building apprentices.

A definite programme was placed before the Building Trades' Parliament, but generally speaking very little progress has been made in carrying out the recommendations. These were: "9 new Junior Technical Schools of Building; 50 new centres of part-time day classes for building apprentices; 1,000 existing classes to be filled to their full capacity; and 3,000 new evening classes to be set up in all subjects relating to building." It was also suggested that the education committee of the council should direct the services of a paid organiser who would assist the progress of building apprenticeship and education schemes throughout the country.

"We think," stated the report, "that the cost of the services of such an officer would be well repaid in the increased efficiency of the building trades, and in view of the enormous expansion of the industry in the near future it is desirable that the Education Committee should be able to have some direct means of influencing the methods of education and trade training of a large number of recruits who will enter the trade." It is well to recall the spirit of those days. It is true that immediately after the war the nation suffered from a too generous outlook regardless of economic consideration. But the pendulum has swung too much the other way.

Although the Building Industry Committee last week refrained from entering into details, and left the decisions as to how craft training should be provided to local arrangements, nevertheless it should be realised that all the most far-sighted leaders of the industry are in agreement with the view that the future of building "lies in the supremacy of craftsmanship working in co-operation with art and technique."

HOUSING PROBLEM DEPUTATION

THE Minister of Health, the Right Honourable Neville Chamberlain, M.P., who was accompanied by Sir Kingsley Wood, M.P., and officials of the Department, received on January 19 a deputation introduced by Lord Jessel from the London Municipal Society.

Speaking on behalf of the deputation, Lord Jessel, Sir Reginald Blair, Colonel Vaughan-Morgan, M.P., and Sir George Hume, M.P., represented that the housing problem in London was different in kind from the problem in provincial towns. It was impossible to deal with a huge population of 7½ millions spread over an area of 117 square miles of closely built-up land by the provision of additional houses on the outskirts, as was possible in provincial towns. Apart from the transport difficulties that were general, there were innumerable families which could not move far away from the place in which they had to work. As a means of dealing with this aspect of the problem, the deputation suggested that to prevent the growth of slum areas in future town planning should be applied to built-up areas. In the meantime, the work of slum clearance should be pressed forward as rapidly as possible and any hampering restrictions that at present existed should be removed. They had been told by representatives of the London County Council that several years might elapse between the determination to undertake a slum clearance and the completion of the scheme. There were cases in which this period had been as much as seven or even ten years. While they recognised that the present conditions of house shortage were exceptional and made what was known as the "decanting" process difficult, by reason of the extreme difficulty in finding accommodation for the tenants of slum houses, still, some acceleration should be possible if local authorities were empowered to use vacant land in their areas for temporary houses for this purpose, and all unnecessary delays which were inherent in the present methods of dealing with slum schemes were eliminated. For instance, it seemed to them probable that the provision of such temporary houses must be hampered by the existence of unnecessarily restricted by-laws.

The Deputation recognised that the provision of houses was severely hampered by the shortage of materials and skilled labour in the building trade, and they urged that every effort should be made to provide alternative methods of construction, and they hoped that the Minister would do all in his power to give effect to this recommendation. Finally, they urged that the Exchequer Grant towards the clearance of insanitary areas should be substantially increased so that the activity of local authorities might be stimulated.

The Minister, in reply, said that he agreed with Sir Reginald Blair that the problems of housing in London were of such a size and complexity as almost to amount to a difference of kind rather than of degree.

London was the financial centre of the world and the commercial centre of a great part of it, consequently the value of land in London was very often enormously high and out of all proportion to values in provincial towns. Moreover, the great distance between the centre and the outskirts of the city enormously enhanced the difficulties of providing housing accommodation for those whose work lay near their present habitations. But the main difference between housing conditions in London and the provinces which he wished to emphasise was to be found in the intensity of its overcrowding. To illustrate this statement the Minister quoted the 1921 Census, showing that the average number of rooms occupied per family in 1921 in units of nine rooms or less was 3.38 in London, as compared with 4.35 in the provinces, while the percentage of population living more than two persons to a room was in the same year 16.1 in London and 9.6 in England and Wales.

Turning to the specific recommendation which the deputation had made, he could assure them that he had always been in favour of the town-planning of built-up areas. It was the only method of securing that the ultimate use to which the various sites in an area should be put would accord with its most efficient development. He could assure the deputation that a Bill providing for the town planning of built-up areas formed part of his legislative programme though he could not pledge himself to any definite date for its introduction.

He warmly welcomed the suggestion of the Society with regard to the use of alternative methods of construction which would lessen the drain on materials and skilled labour in the building trade. He had continued the Committee which Mr. Wheatley had set up to advise him in connection with this problem, and he had also carried on Mr. Wheatley's plan of appointing Committees to deal with the augmentation of the supplies of materials and skilled labour in the building trade. He was hopeful that their efforts, to the sincerity of which he paid a tribute, would result in a considerable improvement in the present situation. But he was of opinion that however successful they might be it was not likely that the provision of houses built on present methods would be rapid enough to satisfy public opinion, and he was, therefore, taking steps, as they all knew, to call the attention of the public to the possibilities of obtainnig supplementary supplies of suitable houses constructed on new lines.

A vote of thanks to the Minister for receiving the deputation was moved by Lord Jessel.

New Cinema.

We understand that a large new cinema is in course of erection at Erith, Kent, for Mr. Sidney Bacon, 143, Charing Cross-road, W.C.2. The contractors are Messrs. G. H. Gunning & Sons, The Mount, Erith. Plans were prepared by Messrs. Percy L. Browne & Sons, Abbey House, Victoria-street, S.W.1. The structure will be of steel-frame and brick with a terra-cotta front, and the roof will be of steel, the floor being of wood. A new picture hall and theatre is also to be erected at Alnwick, Northumberland, with seating accommodation for 1,200 persons, Mr. T. A. Willcox, of Alnwick, being the promoter of the scheme. Plans were prepared by Messrs. J. Oswald & Sons, Worswick Chambers, Worswick-street, Newcastle-on-Tyne, but no contracts have yet been placed. We also understand that a scheme is on hand for the erection of a large new cinema and theatre at Poole, Dorset. Plans are in the hands of Messrs. Pearson & Burroll, 2, Beresford-road, Southborne, Bournemouth, but no contracts for the work have yet been let.

NEW BUILDINGS IN LONDON

Balham.—A new branch stores is to be built in Upper Tooting-road, S.W., by the Royal Arsenal Co-operative Society, Ltd., of Powis-street, S.E. The new premises will be in brick on a steel frame, with reinforced concrete floors. The ground floor accommodation will include departments for stores, whilst a hall will be provided above. The plans have been prepared by the Co-operative Society's own staff, who are also to execute the buiding work.

Stamford Hill.—The Primitive Methodist Church at Stamford Hill, N., intend building a new church school and school buildings in Ravensdale-road. The plans have been prepared by Messrs. George Baines & Son, F.R.I.B.A., of 121, Victoria-street, S.W. 1, and show accommodation for about 600 persons and a school holding some 400 children. The buildings will be of brick construction with stone dressings. The contractors are Messrs. W. H. T. Kelland & Sons, Ltd., of 43, Manor-road, N. 16.

Wealdstone.—A new branch bank is being erected at Kenton for Barclays Bank, Ltd. Plans have been prepared by Mr. A. Foster, the bank's architect, for a building of one story, and the contract has been placed with Messrs. J. Honour & Son, Ltd., of Tring, Herts.

Bermondsey.—Alterations and additions are to be made to Bacon's Schools in Grange-road, S.E. The buildings are to be extended and new class-rooms and cloakrooms, &c., provided, at a cost of about £3,000. A part of the work, including the reconstruction of the lavatories and the extension of the playground, has been contracted for with Messrs. W. J. Dixon & Sons, of Blue Anchor-lane, S.E. 16. The architects are Messrs. J. M. Kennard & Son, of 13, Railway-approach, S.E. 1.

Watford.—Extensions and improvements are to be carried out to the church of St. Michael and All Angels, at a cost of about £4,000. The plans have been prepared by Messrs. Bond & Cockrill, F.R.I.B.A., of 115, Gower-street, W.C.

Lambeth.—A block of property at Nos. 244-250, Westminster Bridge-road, S.E. 1, is to be altered to serve as a branch of the National Provincial Bank, Ltd. The architect to the Bank is Mr. F. C. R. Palmer, F.R.I.B.A., of 15, Bishopsgate, E.C. 3.

Edmonton.—The "Stag and Hounds" public house is to be rebuilt, and a building of three stories is to be erected. The contractors are Messrs. R. Ginn & Sons, of St. Andrew's Works, Hertford. The architects are Messrs. Dudley, Newman & Elliott, of 39, Bedford-row, W.C. 1.

Southwark.—It is proposed by Variety Theatres Consolidated, Ltd., of 25, Charing Cross-road, W.C. 2, to reconstruct the South London Palace, London-road, S.E. 1. The interior is to be entirely gutted and rebuilt, with new balconies, new crush halls and foyer, &c. The cost will be about £50,000, and it is expected that arrangements will be made for the work to commence immediately after the winter season. The architect is Mr. Cecil Masey, of 19, Devereux-court, W.C. 2.

Pall Mall.—The committee of the Army and Navy Club, Pall-mall, have purchased a large block of buildings adjoining, and plans are in hand for the addition of a new wing to the main building, providing public rooms and bedrooms. The construction will be steel frame and Portland stone. Reinforced concrete floors will be built. The architect is Mr. Claude W. Ferrier, F.R.I.B.A., of 11, Waterloo-place, S.W. 1.

Cheapside.—A building is to be erected on the old General Post Office site in St. Martin's le Grand by the Westminster Bank, Ltd., of Lothbury, E.C. An area of over 1,000 sq. ft. has been obtained and a building of six floors will be provided. The plans show a steel frame building with elevation in Portland stone and granite. The contractors are Messrs. Prestige & Co., Ltd., 149, Grosvenor-road, S.W. 1. The architects are Messrs. Gunton & Gunton, Blomfield-street, E.C.

Cheapside.—Excavation work is in progress on the site of the office and warehouse to be erected on the old General Post Office site at the corner of Cheapside and St. Martin's le Grand. The new building is to be erected for the Cheapside Land Development Co., Ltd., of 3-4, Lothbury, E.C.2, and the contract prices for the land and the building amount to £428,664. The building will cover a site area of 21,806 super. ft., and will have eight stories, and the whole of the interior accommodation will be divided up into suites of offices and warerooms. The elevation to Cheapside will be in Portland stone. All floors will be of concrete reinforced with steel joists, whilst the stairs and landing will also be of this material. The contractors are Messrs. Arthur Vigor, Ltd., of 20, Knightsbridge, S.W. The architects are Messrs. Gunton & Gunton, of Finsbury House, Blomfield-street, E.C. 2.

Stoke Newington.—The "Red Lion" public house, owned by Messrs. Truman, Hanbury, Buxton & Co., Ltd., of Brick-lane, E. 1, is to be pulled down and rebuilt to plans prepared by the Brewery's architect, Mr. A. E. Sewell, M.S.A. The contractor, Mr. H. V. Clogg, of 81, Vallance-road, E. 1, is about to start work.

Neasden.—The Metropolitan Railway Co. propose to carry out a housing scheme at Neasden. As a first instalment it is proposed to put in hand about fifty houses. These will be of non-parlour type, of a design providing accommodation qualifying for the subsidy. The walls will be built of concrete blocks, some of which will be pebble-dusted. Mr. C. W. Clark is the architect to the company.

Bunhill-row.—Work is in progress on the reinstatement of 67, Bunhill-row, E.C. 4, owned by Messrs. Birn Bros., Ltd., which was gutted by a recent fire. The contractors are Messrs. Dove Bros., Ltd., of Cloudesley-place, N. 1. The architects are Messrs. Davis & Emanuel and Henry C. Smart, of 73A, Queen Victoria-street, E.C. 4.

Regent-street.—One of the rebuilding proposals of this street about to be started relates to the premises occupied by Messrs. Charles Packer & Co., Ltd., and Messrs. Callard & Co. The buildings comprise Nos. 74, 76 & 78, Regent-street, and No. 7, Air-street. A building of seven stories is to be erected. The architects are Messrs. William Woodward & Sons, of 15, Great James-street, W.C. 1.

Holloway.—Alterations and additions are being carried out to the shop premises of Mr. W. W. Bangs, at Nos. 128–130, Seven Sisters-road, Holloway, N.7. The whole of the rear of the present premises on the ground and first floor is to be removed, and the shop extended over the whole site with show rooms on first floor over. The general contractor is Mr. W. M. Brand, 51, Old Hill-street, Stamford Hill, N.16; the steelwork being carried out by The Aston Construction Co., Ltd. The architect is Mr. Herbert J. Axten, A.R.I.B.A., Enfield.

"New Methods of Building."

Messrs. The Corolite Construction, Ltd., writing with reference to the description of "Corolite" concrete in our issue of January 9, state that "Corolite" walls are themselves weatherproof and do not require any external coating to make them so. A thin wash or spatter-dash can be applied to the exterior of the walls, but this is done merely to improve the appearance if this is desired.

Retaining Wall at Hampstead.

With reference to the photograph of the retaining wall at the Viscount Leverhulme's residence at Hampstead published in an advertisement by the British Reinforced Concrete Engineering Co., Ltd., in a recent issue the Company wish us to state that the architectural work has been carried out by Messrs. T. H. Mawson & Sons, in conjunction with Mr. Leslie Mansfield, F.R.I.B.A.

THE ROMANCE OF STEEL

On January 16 Messrs. Dorman Long & Co. exhibited a film and a series of slides before the Ferndale School of Building. Mr. H. D. Searles Wood, F.R.I.B.A., presided, and Mr. J. Stuart Lewis spoke on the film as it operated.

The film, which was of great interest, showed the various processes which go to the making of steel from the first stage of iron-stone to the finished article. These various processes necessitate the employment of fully 25,000 men. The Company own their own mines, and various views of the pitheads, limestone quarries, coke ovens, blast furnaces and pig-iron foundries were shown in detail by the film. Ladles capable of holding fifty tons of molten steel, and ingots weighing eight tons which were to be rolled into sheets 6 in. by 100 ft. by 7 ft. were two of the mechanical miracles illustrated. The methods of galvanising and corrugating steel sheets, which to the uninitiated seem delightfully simple, were then shown, together with the manufacture of barbed wire by an apparatus which closely resembled a gigantic sewing machine. The finished steel was finally shown in being at Adelaide House, Bush House, and other London buildings.

Mr. Searles Wood, in proposing a vote of thanks to Mr. Stuart Lewis, said the lecture had been most valuable from an educational point of view. With the large amount of work done automatically it was interesting to note the large number of men required. Messrs. Dorman Long & Co. were to be congratulated on the excellence of their film.

Major Petrie, in seconding the vote of thanks, congratulated the students of the Ferndale School of Building on the lecture they had been privileged to hear. The film had shown him, in some respects, more than he had seen in some of the largest factories in England.

CARDIFF BUILDING EMPLOYERS

Mr. John Davies, A.I.O.B., presided recently at the annual meeting of the Cardiff Association of Building Trades Employers.

The annual report was presented by the secretary, Mr. Isaac Watkins, and showed that the Association membership had increased during the recent strike of operatives. The suggestion had been put forward that the South Wales area be divided for the purpose of setting up local committees under the Housing Acts, and steps will be taken in consequence, without delay, for the setting up of the suggested committees.

The election of officers for the ensuing year resulted as follows:—President, Mr. T. E. Gough, A.I.O.B.; senior vice-president, Mr. F. J. Thomas, A.I.O.B.; junior vice-president, Mr. D. W. Selby; hon. treasurer, Mr. E. A. Ward, A.I.O.B.

Mr. W. F. Gibson submitted a report on the joint meeting of employers and operatives in London when the demand for "wet time" allowance was considered. Mr. I. J. Chorley submitted a statement summarising the steps taken by the National Organisation to augment the supply of apprentices for the building industry. The notice served by the bricklayers and plasterers for withdrawal from the operatives National Federation had been considered.

Steel Contracts.

Messrs. Heenan & Froude, Ltd., structural engineers, Newton Heath, Manchester, have secured two large contracts, namely, one for a large power station at Ferrybridge, Yorkshire, for the Yorkshire Electric Power Co., Ltd., and the other for a new works at Stafford, for the British Reinforced Concrete Engineering Co., Ltd., of Manchester.

The Piccadilly "Skeleton."

The site in Piccadilly, facing the Green Park, and occupied by the skeleton of a large building, will shortly be covered by the erection and completion of the hotel which was begun some years back but abandoned on account of the war.

NORTHUMBERLAND MASTER PLUMBERS' DINNER

THE annual dinner of the Northumberland and Durham Master Plumbers' and Domestic Engineers' Association was held recently at Newcastle. The newly-elected President (Mr. Edwin Laidlaw) presided over a gathering, comprising members of local authorities and of the plumbing and its allied trades. He was supported by Messrs. A. Patton, R. H. Rowell, W. B. Aynsley, and Wm. Scott (past Presidents), amongst the guests were Councillor T. Arthur Lowe (Deputy Lord Mayor of Newcastle), Councillor J. Grantham (Sheriff of Newcastle), Councillor T. W. Holliday (Mayor of Durham), Mr. W. T. Jones (President of the Northern Architectural Association), Mr. J. P. Allen (of the Northern Counties' Quantity Surveyors' Association), Dr. Stuart (Medical Officer for Durham City), Mr. Geo. Wood (President of the Institute of Plumbers), Mr. J. P. Cox (past-President of that body), Mr. G. G. Carr (President of the Builders' Federation), Mr. R. J. Richardson, (President of the Painters' and Decorators' Federation), Mr. D. Crombie (President of the Plasterers' Federation), and others.

Mr. Wm. Scott, in proposing Mr. Laidlaw, who was an ex-Mayor of Durham City, said they had a man of sterling worth, and one who came of some generations of master plumbers. Mr. Laidlaw, he was sure, would more than justify the confidence reposed in him by his fellow-craftsmen.

Replying, Mr. Laidlaw said he would always strive his utmost to further the interests of their craft. His family had been associated with the plumbing trade for over a century. It gave him real gratification to know that the plumbing trade was at last taking its proper place in the industries of this country, for it was, perhaps, the most important trade of all, so far as the building industry was concerned. In a large measure the good health of the community depended upon the efficiency of the plumber.

Mr. R. H. Rowell proposed "The Civic Authorities," and, responding, Councillor Lowe traced the growth of hygiene and observed that plumbers were practically doing away with the doctor's trade, for during the recent years they had destroyed many of the menaces which formerly existed in the towns and cities of this country. They had wiped out typhus and abolished many of the epidemics which swept the country, particularly in the Middle Ages. The plumbing industry was therefore in many directions materially assisting in making the community a happier and healthier one.

The Sheriff of Newcastle, who also replied, complimented the Association on the valuable work it was doing for the younger generation in the matter of the training of apprentices, by means of classes, and the recently inaugurated demonstration room at Rutherford College, for the use of plumbing apprentices.

Mr. Frank Maughan, in proposing the health of the past President (Mr. Arthur Patton), referred to his splendid work during a difficult year; and Mr. Patton, in his response, dealt with difficulties facing the trade, and touched upon the question of the trespassing on the legitimate rights of master plumbers by municipal authorities, co-operative societies, and builders. He declared that they must keep their trade in their own hands, and could only do so by closer co-operation. The employee of the future would have a much larger voice in the working of the industry than in the past, and this, he considered, would herald brighter times. It was an extremely good thing that they had taken definite forward steps towards regularising the status of apprentices, and in this connection he recalled with pride the recent gathering of 200 apprentices, who were entertained by the Association. It was a great step towards the establishing of closer relationships between employers and apprentices.

At the annual meeting of the Association, Mr. Edwin Laidlaw was appointed President and Mr. Frank Maughan, Vice-President; with Messrs. Geo. A. Moore and Wm. Scott, as Hon. Treasurer and Hon. Secretary respectively.

RATES OF WAGES IN THE BUILDING TRADE

Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.

	Masons.	Bricklayers.	C'p'ters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Accrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Altrincham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ashton-under-Lyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barnsley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barrow-in-Furness	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bath	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bedford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bishop Auckland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackburn	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackpool	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bolton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bournemouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bradford	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Brentwood	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bridgwater	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Brighton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bristol	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Burnley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Burton-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bury	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Cambridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cardiff	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chatham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chelmsford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cheltenham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chesterfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Crewe	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Darlington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Derby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Doncaster	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Dudley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Durham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
E. Glam. (Mon. Vall)	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Eastbourne	1/5	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Exeter	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Folkestone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Grantham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Grays	1/8½	1/8½	1/8½	1/8½	1/8½	1/8½	1/7½	1/3½
Grimsby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Great Yarmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Guildford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Halifax	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Harrogate	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hartlepools	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hastings	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hereford	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Huddersfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hull	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ipswich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lancaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leeds	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leicester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Lichfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Lincoln	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
London (12 m. radius)	1/9½	1/9½	1/9½	1/9½	1/9½	1/9½	1/8½	1/4½
London (12-15 m. radius)	1/9	1/9	1/9	1/9	1/9	1/9	1/8	1/4
Loughborough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Luton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Maidstone	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Manchester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Mansfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Merthyr Tydfil	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Middlesbrough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newcastle-on-Tyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newport, Mon.	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Norwich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Nottingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Oakham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Oldham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Oxford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Plymouth	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3½
Pontypridd	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Portsmouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Preston	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Reading	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Rochdale	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Rochester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Rugby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
St. Albans	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Helens	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Scarborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Sheffield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Shrewsbury	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Southampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southend-on-Sea	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
South Shields	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stockport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stockton-on-Tees	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stoke-on-Trent	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stroud	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5	1/1½
Sunderland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Swansea	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Swindon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Taunton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Torquay	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Tunbridge Wells	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wakefield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Walsall	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Warrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
West Bromwich	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Wigan	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Windsor	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wolverhampton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Worcester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
York	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½

(For rates of wages in the Building Trade in Scotland, see page 174.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

JANUARY 24.—**Huddersfield.**—ALTERATIONS.—For building alterations at the Milnsbridge New-street Council school, for the West Riding E.C. Mr. W. Heeley, Divisional Clerk, 4, Macaulay-street.

JANUARY 24.—**Kirbymoorside.**—HOSPITAL.—For trades in the erection of orthopædic hospital, road-making and drainage, carpenter and joiner, plumber and glazier, for the Committee. Messrs. Garside & Pennington, architects and surveyors, Ropergate, Pontefract. Deposit £2 2s.

JANUARY 24.—**Rhos.**—HALL.—For erection of a new public hall and miners' institute at Rhos, near Wrexham. Messrs. J. Owen & F. A. Roberts, architects, Westminster Bank Chambers, Wrexham. Deposit £2 2s.

JANUARY 24.—**Westhampnett.**—HOUSES.—For the erection of 42 houses proposed to be built by the R.D.C. Mr. W. D. Rasell, Clerk to the Council, Council Offices, Pallant House, Chichester.

JANUARY 24.—**West Hartlepool.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Baltic Chambers, West Hartlepool, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners of H.M. Works, &c.).

JANUARY 26.—**Bacup.**—HOUSES.—For erection of 40 houses on the Heath Hill estate, for the C.B. Mr. F. W. Mozley, Borough Engineer, Municipal Offices, Municipal Hall. Deposit £5 5s.

JANUARY 26.—**Bristol.**—ENLARGEMENT OF GOODS STATION.—Enlargement of goods station at Temple Meads, Bristol, for the Great Western Railway Co. The Engineer, Paddington Station, London, between the hours of 10 a.m. and 4 p.m.

JANUARY 26.—**Cardiff.**—RETAINING WALL.—Construction of a retaining wall, subways and other works at Queen-street Station, Cardiff, for the Great Western Railway Co. The Engineer, Paddington Station, London, between the hours of 10 a.m. and 4 p.m.

JANUARY 26.—**Chelmsford.**—COTTAGES.—For the erection of two pairs of cottages at Boreham, two pairs of cottages at Chignall, two pairs of cottages at Ford End, Great Waltham, for the R.D.C. Mr. A. S. Duffield, Clerk, 96, High-street.

✱JANUARY 26.—**Clacton-on-Sea.**—ALTERATIONS.—Co-operative shop, Old-road, Clacton, alterations, including a new shop front and internal fittings. E. A. Abbott, Secretary, Co-operative Society, Ltd., Rosemary-road, Clacton-on-Sea.

JANUARY 26.—**Coseley.**—SCHOOLS.—For the erection of new senior and junior elementary schools at Broadlanes, Coseley, near Bilston, for the E.C. Mr. F. J. C. Poole, Secretary to Education Committee, Education Offices, Coseley. Deposit £5 5s.

JANUARY 26.—**Edinburgh.**—ALTERATIONS.—For alterations, &c., to St. Andrew's Post Office, for H.M.O.W. Secretary, Storey's Gate, S.W.1.

JANUARY 26.—**Newport.**—ADAPTATION.—For adaptation of "Bryngwyn" Clytha Park-road, for a school clinic, for the E.C. Mr. T. Arthur Eaves, Secretary and Executive Officer, Education Offices, Newport, Mon.

JANUARY 26.—**Ogmore and Garw.**—ADDITIONS.—For erection of a scarlet fever ward and for alterations and additions to the administrative block at the Isolation Hospital, Blackmill, Glam, for the U.D.C. Mr. W. T. Ollivant Jones, Engineer and Surveyor, Council Offices, Brynmenin, Glam. Deposit £3 3s.

JANUARY 26.—**Rowley Regis.**—HOUSES.—For erection of 16 houses, making-up roadway to proper level, &c., for the U.D.C. Mr. D. Wright, Clerk to the Council.

JANUARY 26.—**Sculcoates.**—LAVATORY.—For certain work for bricklayers, plasterers, plumbers, &c., and the erection of a lavatory at the cottage homes, Hessle, for the B.G. Mr. W. Barrow, Clerk to the Guardians, 12, Harley-street, Hull.

JANUARY 26.—**Stanley.**—HOUSES.—For erection of 20 houses on Shield-row housing estate, for the U.D.C. Mr. J. Hamilton, Clerk to the Council, Council Offices, Stanley, Co. Durham. Deposit £2 2s.

JANUARY 26.—**Stalybridge.**—POWER STATION.—General builder's work in the superstructure of the proposed Hartshead Power Station, Stalybridge, including turbine beds and brickwork setting to economisers, for the Stalybridge, Hyde, Mossley, and Dunninfield Tramways and Electricity Board. Messrs. W. H. George & Son, architects, 7, Warrington-street, Ashton-under-Lyne. Deposit £1 1s.

JANUARY 26.—**Upper Cwmtwrch.**—HALL.—For erection and completion of a concert hall and institute, together with a river wall and other preliminary works, for the Miners' Welfare Committee. Mr. T. E. Williams, Secretary, Cliff House. Deposit £2 2s.

JANUARY 26.—**York.**—HOUSES.—For erection of 86 brick houses of the non-parlour type, at the Heworth housing estate, for the T.C. Mr. F. W. Spurr, architect, Guildhall. Deposit £2 2s.

JANUARY 27.—**Durham.**—SCHOOL.—For erection of a new Council school at Delves-lane, for the E.C. A. J. Dawson, Director of Education, Shire Hall, Durham.

JANUARY 27.—**Eastleigh.**—HOUSES.—Erection of 58 houses, being first instalment of a scheme for 220 houses on the Council's housing site, Winchester-road, Eastleigh, for the U.D.C. The Surveyor, Offices of the Council, Leigh-road, Eastleigh.

JANUARY 27.—**Folkestone.**—BAND PAVILION.—Erection and completion of a band pavilion in Marine Gardens, Folkestone, for the Corporation of Folkestone. Mr. A. E. Nichols, Borough Engineer, Corporation Offices, Folkestone. Deposit £4 4s.

JANUARY 27.—**Guildford.**—HOUSES.—Erection of three pairs of non-parlour houses on the Burnt Common site, in the parish of Send and Ripley, for the Guildford R.D.C. Mr. John Anstee, Council's Architect, Council Offices, Commercial-road, Guildford. Deposit £2 2s.

JANUARY 27.—**Leeds.**—CONVENIENCES.—For erection of conveniences at Bramley Fall Woods, for the T.C. Mr. W. T. Lancashire, City Engineer, Municipal Buildings.

JANUARY 27.—**Liverpool.**—DEMOLITION.—For demolition of the central portion of the Palm House, Botanic Garden, for the T.C. Mr. W. Moon, Town Clerk, Municipal Buildings.

JANUARY 27.—**Pwllheli.**—HOUSES.—Erection and completion of 12 houses (subsidy parlour type) on the Abererch-road site, for the Borough Council of Pwllheli. The Borough Surveyor, Town Hall, Pwllheli.

JANUARY 27.—**Seaham Harbour.**—ADDITIONS.—For additions to the Upper Standard Council school, for the Durham C.C. Mr. A. J. Dawson, Director of Education. Shire Hall, Durham.

JANUARY 27.—**Willesden.**—BATHS, &C.—For the erection of baths and washhouses at Disraeli-road, Lower-place, for the District Council. Mr. F. Wilkinson, M.Inst.C.E., Engineer to the Council, Town Hall, Dyne-road, Kilburn, N.W.6.

JANUARY 27.—**Willesden.**—CHALETS.—For the erection of refreshments chalets at Gladstone Park and King Edward VII Recreation Ground. Mr. F. Wilkinson, M.Inst.C.E., Engineer to the Council, Town Hall, Dyne-road, Kilburn, N.W.6.

JANUARY 28.—**Ewood Bridge.**—STORE.—For erection of a lime mixing house and store, and construction of two sludge tanks with pipe connections, and other works, at the Sewage Works, for the Haslingden, Rawtenstall and Bacup Outfall Sewerage Board. Mr. J. R. Bugler, Clerk to the Board. Deposit £5.

JANUARY 28.—**Ireland.**—CINEMA.—For erection and completion of new cinema theatre, Ringsend, for the Cities Cinema, Ltd. Mr. T. F. McNamara, architect, 192, Pearse-street, Dublin.

JANUARY 28.—**Leeds.**—STORES.—For new storage accommodation, shower baths, &c., at Bramley Baths, for the T.C. Mr. W. T. Lancashire, City Engineer, Municipal Buildings.

JANUARY 28.—**Llangranog (Cards).**—RENOVATIONS.—Renovating the Capel Wig Congregational building, near Llangranog. Messrs. Davies & Sons, architects, Henllau (Cards).

JANUARY 28.—**London, S.W.17.**—FIRE EXITS.—Additional fire exits to ward blocks at the Fountain Temporary Mental Hospital, Tooting-grove, Tooting Graveney, S.W.17., for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

✱JANUARY 29.—**East and West Molesey.**—BATHING STATION.—For construction of a bathing station, for the U.D.C. Mr. Gordon Condell, Clerk to the Council, Dundee Villa, East Molesey.

JANUARY 29.—**Grays.**—REDECORATING.—For certain painting and redecorating work at the children's homes, Stifford, Grays, for the Limehouse B.G. Mr. A. J. Smith, Clerk, Guardians' Offices, Barnes-street, Commercial-road East, E.14. Deposit £2 2s.

JANUARY 29.—**Southwell.**—MORTUARY.—For erection of a mortuary at the Institution, Upton-road, for the B.G. Mr. J. Ellis, Clerk to the Guardians, Westgate.

JANUARY 30.—**Brynmawr.**—HOUSES.—For erection of 12 non-parlour type houses at Twyncynghordy, Brynmawr, for the U.D.C. Mr Hy. Waters, architect, Waungoch House, Beaufort. Deposit £2 2s.

JANUARY 30.—**Heald Green.**—SUB-STATION.—For erection of a sub-station, for the Cheadle and Gatley U.D.C. Mr. H. A. Yearsley, architect, 25, Market-street, Manchester. Deposit £2 2s.

JANUARY 30.—**Ireland.**—REBUILDING.—For rebuilding of Loo Bridge Station offices and station master's house in concrete blocks, with a slated roof, for the Great Southern Railway. Mr. C. E. Riley, Secretary, Kingsbridge. Deposit £1 1s.

JANUARY 30.—**London, N.6.**—PUBLIC CONVENIENCES.—Erection of three public conveniences at Priory-road, Hornsey, The Broadway, Crouch End, and the Broadway, Muswell Hill, for the Borough of Hornsey. Mr. E. J. Lovegrove, Borough Engineer, and Surveyor, Town Hall, Highgate, N.6.

JANUARY 30.—**Reading.**—HOUSES.—Erection of 20 houses in Norcot-road, Tilehurst, for the County Borough of Reading. Housing Architect, Old College Buildings, St. Laurence's-churchyard, Reading.

JANUARY 30.—**Spenborough.**—HOUSES.—For all trades in the erection of 60 houses, in various parts of the district, as follows: Heaton House 12 parlour type, 10 scullery type; Scholes 4 parlour type, 6 scullery type; Hartshead Moor 8 scullery type; Eddercliffe 8 parlour type, 12 scullery type; for the U.D.C. Mr. J. H. Linfield, Clerk of the Council, Town Hall, Cleckheaton. Deposit £1 each.

JANUARY 31.—**Barnsley.**—PAINTING.—For cleansing, painting and decorating the Public Hall, at the Harvey Institute, Eldon-street, for the C.B. Borough Engineer, Fairfield House Offices.

JANUARY 31.—**East and West Flegg.**—HOUSES.—For erection of non-parlour houses at Ormesby St. Margaret (two pairs), Caister (one pair), Filby (one pair), for the R.D.C. Mr. R. Gournay Ferrier, Clerk, 36, South Quay, Great Yarmouth. Deposit 10s. 6d.

JANUARY 31.—**Ipswich.**—REPAIRS.—For repairs to school buildings, for the E.C. Mr. H. Armitage Secretary for Education, Tower House.

JANUARY 31.—**Keith.**—ADDITIONS.—For mason, carpenter, plumber, plaster, slater, glazier, and steel works of additions and alterations at the Turner Memorial Hospital. Messrs. Kelly & Nicol, architects, 367, Union-street, Aberdeen.

JANUARY 31.—**Saltash.**—SCHOOL.—For erection of a new secondary school, for the Cornwall E.C. Mr. F. G. Drewitt, architect to the Committee, Lloyd's Bank Chambers, Penzance. Deposit £2 2s.

JANUARY 31.—**Waterlands.**—REPAIRS.—For repairs to a cottage, situated at Waterlands, provided under the Kinsale R.D. Scheme No. 82. Mr. R. E. Beckerson, Chief Clerk. Deposit £1 1s.

✱FEBRUARY 2.—**Bristol.**—HOSPITAL EXTENSIONS.—Extensions to the Ham Green Hospital, Pill, Bristol, comprising a pavilion to accommodate 56 beds, new administration building, and other works in connection therewith, for the City and County of Bristol. Mr. Lessel S. McKenzie, A.M.Inst.C.E., City Engineer and Surveyor, City Engineer's Office, 63, Queen-square, Bristol. Deposit £3 3s.

FEBRUARY 2.—**Dorchester.**—CHANCEL.—For completion of the chancel of St. George's Church. Mr. S. A. Jackson, architect, Dorchester.

FEBRUARY 2.—**Enfield, Middlesex.**—HOUSES.—Erection of 40 houses, upon four sites, for the Enfield Urban District Council. Council's Surveyor, Public Offices, Enfield, Middlesex. Deposit £2 2s.

FEBRUARY 2.—**Hindley.**—HOUSES.—For erection of 26 houses on the housing site, Atherton-road, Hindley-green, for the U.D.C. Mr. T. Robey, Clerk to the Council, Council Offices. Deposit £3 3s.

FEBRUARY 2.—**Leeds.**—LIBRARY.—For general building work and for steelwork required in connection with the erection of a public library in Cardigan-road, Burley, for the T.C. Mr. T. Thornton, Town Clerk. Deposit £1 1s.

FEBRUARY 2.—**London.**—HOUSES.—For erection of 72 houses on a site at Manchester-road, for the Poplar B.C. Mr. Harley Heckford, Borough Surveyor, Council Offices, Poplar. Deposit £3 3s.

FEBRUARY 2.—**Manchester.**—PLUMBING.—For execution of general contractor's and plumber's work that may be required in connection with the drainage of houses and other premises, for the T.C. Mr. P. M. Heath, Town Clerk, Town Hall.

FEBRUARY 2.—**Salford.**—HOUSES.—For erection of 30 houses on the Weaste housing estate, Eccles Old-road, Pendleton, for the C.B. Mr. G. Westcott, architect, 13, Bridge-street, Manchester.

FEBRUARY 2.—**Watford.**—HOUSES.—Erection of 16 houses at Leggatt's Way, Harebreaks, Watford, for the Corporation of Watford. Mr. D. Waterhouse, Borough Engineer, Municipal Offices, 14, High-street, Watford. Deposit £2 2s.

FEBRUARY 2.—**Weymouth and Melcombe Regis.**—HOUSES.—For the third instalment of the housing scheme, consisting of 42 houses, 13 blocks semi-detached parlour type, eight blocks semi-detached non-parlour type, for the C.B. Mr. F. T. V. Isherwood, Town Clerk, Municipal Offices, Weymouth. Deposit £2 2s.

FEBRUARY 3.—**Cheshunt.**—HOUSES.—Erection of 60 houses on the Paul's Nursery site, Waltham Cross, for the Cheshunt U.D.C. Mr. J. E. Sharpe, Engineer and Surveyor to the Council, Manor House, Cheshunt. Deposit £5 5s.

✱FEBRUARY 3.—**Hampstead, N.W.3.**—WORKS MATERIALS AND SERVICES.—Tenders for works, materials and services for the Hampstead Borough Council. Mr. Arthur P. Johnson, Town Clerk, Town Hall, Haverstock Hill, N.W.3.

✱FEBRUARY 3.—**Kidderminster.**—PUBLIC CONVENIENCES.—The whole of the works of erecting public conveniences at the bottom of High-street, Kidderminster, for the B.C. Mr. J. Hawcroft, Borough Engineer and Surveyor, Town Hall, Kidderminster. Deposit £2 2s.

FEBRUARY 3.—**Lexden and Winstree.**—HOUSES.—For erection of cottages in the following parishes:—Boxted, 6; Great Horkesley, 6; Inworth, 6, for the R.D.C. Mr. G. E. Tompson, Clerk to the Council, Victoria Chambers, Colchester. Deposit £1 1s.

FEBRUARY 3.—**London, W.**—TELEPHONE EXCHANGE.—Erection of "Langham" Telephone Exchange, Nottingham-street, Marylebone, W., for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Cheques payable to the Commissioners of H.M. Works, &c.

FEBRUARY 3.—**Maldon.**—HOUSES.—For the erection of eight workmen's dwellings, in pairs, at Latchingdon, for the R.D.C. Mr. Wm. Almond, surveyor, 6, Market-hill, Maldon, Essex.

FEBRUARY 3.—**Sutton-in-Ashfield.**—CONVENIENCES.—For erection of public conveniences in New-street, for the U.D.C. Mr. Luther Pepper, Clerk to the Council, Portland-square. Deposit £1 1s.

FEBRUARY 4.—**Bletchley.**—HOUSES.—For erection of 16 cottages, for the U.D.C. Mr. W. Charter Wilson, Clerk to the Council, Council Offices.

✱FEBRUARY 4.—**Dorchester.**—SCHOOL.—Erection of an elementary school at Portland (Tophill) to accommodate 560 scholars, for the Dorset County Council. Mr. E. A. Ffooks, Clerk to the Council, Council Offices, Dorchester. Deposit £2 2s.

✱FEBRUARY 4.—**Hove.**—HOUSE.—For the erection of a dwelling house, for the B.C., at their depot in Sackville-road. The Borough Surveyor's Office, Town Hall, Hove. Deposit, £1 1s.

FEBRUARY 4.—**Oswaldtwistle.**—HOUSES.—For the erection of 16 houses on the Thwaites-road site, for the U.D.C. Mr. R. N. Hunter, Consulting Engineer to the Council, 22, Rhyddings-street, Oswaldtwistle. Deposit £2 2s.

FEBRUARY 4.—**Romford, Essex.**—HOSPITAL EXTENSIONS.—Extension of the administration block and the erection of a cubicle block at their Isolation Hospital, Rush Green, Romford, for the Romford Joint Hospital Board. Mr. R. Banks-Martin, 121 Plashet-grove, East Ham. Deposit £3 3s.

✱FEBRUARY 4.—**Wembley, Middlesex.**—CONVENIENCE.—Construction of an underground convenience at Wembley Green, Wembley, for the Wembley U.D.C. Mr. Cecil R. W. Chapman, Engineer and Surveyor, Council Offices, Wembley, Middlesex. Deposit £2 2s.

✱FEBRUARY 5.—**Rochford, Essex.**—WORKMEN'S DWELLING HOUSES.—Erection of workmen's dwelling houses as follows: Contract No. 1: Barling, six houses. Contract No. 2: Great Wakering, 20 houses. Contract No. 3: Rawreth, 12 houses, for the Rochford R.D.C. Surveyor to the Council, Mr. A. C. Madge, Surveyor's Office, Rayleigh. Deposit £1 1s.

✱FEBRUARY 6.—**Kensington, W.8.**—WORK, SUPPLY OF MATERIALS.—Tenders for work, supply of materials, &c., for twelve months commencing on April 1, 1925, for the Council of the Royal Borough of Kensington. Mr. Horace Rapson, Town Clerk, Town Hall, Kensington, W.8.

FEBRUARY 6.—**Merthyr Tydfil.**—HOUSES.—For erection of 56 houses at Gellifaelog, for the C.B. Borough Architect, Town Hall.

FEBRUARY 6.—**Oldbury.**—SCHOOL.—For erection of a secondary school for 416 pupils, for the Worcestershire C.C. Mr. A. W. Priestley, Director of Education, County Education Office, 37, Foregate-street, Worcester

FEBRUARY 7.—**Wallington, Surrey.**—HOUSES.—Erection and completion of the second instalment of 2 houses, brick built, on the Miller's Orchard, Beddington Corner, for the Beddington and Wallington Urban District Council Housing Scheme No. 2. Mr. S. F. R. Carter, A.M.Inst.C.E., Engineer and Surveyor to the Council, Council Offices, Wallington. Deposit £2 2s.

✱FEBRUARY 9.—**London, S.E. 5.**—PAINTING.—External painting of approximately 186 houses and 10 blocks of flats at the Council's Sunray and Newlands Housing Estates, for the Camberwell Borough Council. Mr. William Bell, Borough Engineer, Camberwell, S.E. 5.

FEBRUARY 9.—**Port Talbot.**—BUILDING.—For erection of a building on the Gas Works site, for the C.B. Mr. M. Thomas, Town Clerk, Aberavon.

✱FEBRUARY 9.—**Smethwick.**—HOUSES.—Erection of the following non-parlour type houses on the Upland's site, Hales-lane, Smethwick, for the Corporation of Smethwick. Contract No. 1: 14 houses. Contract No. 2: 28 houses. Contract No. 3: 84 houses. Mr. Roland Fletcher, Assoc.M.Inst.C.E., Borough Engineer and Surveyor, Council House, Smethwick. Deposit £5.

✱FEBRUARY 9.—**Whitehaven.**—HOUSES.—Erection and completion of 100 houses near Arrowthwaite, for the Borough of Whitehaven. Mr. Leonard Worden, Town Clerk, Town Hall, Whitehaven.

FEBRUARY 10.—**Folkestone.**—BAND PAVILION.—Erection and completion of a band pavilion on the Leas Cliff (adjoining the Leas Concert Hall), Folkestone, for the Corporation of Folkestone. Mr. J. L. S. Dahl, architect, Radnor Chambers, Folkestone, or at the office of the Quantity Surveyors, Messrs. Gardiner & Theobald, 96, Gower-street, London, W.C.1. Deposit £2 2s.

FEBRUARY 11.—**Bath.**—HOUSES.—For erection of 36 houses, at Englishcombe-park, of the parlour or non-parlour type, for the T.C. Mr. J. Basil Ogden, Town Clerk, Guildhall. Deposit £1 1s.

FEBRUARY 11.—**Hunslet**—HOUSES.—For erection of 49 houses at Woodlesford, for the R.D.C. Mr. W. P. Peters, architect, 89, Albion-street, Leeds.

FEBRUARY 11.—**London, S.E.16.**—SWIMMING BATHS AND CONCRETE WORK.—New baths and washhouses (Contract No. 2).—Erection of that part of the Baths Scheme, comprising the swimming baths, slipper baths and Turkish, &c., baths, and a considerable amount of reinforced concrete work, in Grange-road, Bermondsey, for the Bermondsey B.C.

FEBRUARY 12.—**Near Thorpe-le-Soken.**—HOUSES.—For erection of six detached brick cottages, set of farm buildings at Beaumont Quay, alterations to buildings and cottages at Beaumont Quay and Lower Barn Farm, alterations to buildings and cottages at Beaumont Hall Farm, for the Essex C.C. County Land Agent, 69, Duke-street, Chelmsford.

✱FEBRUARY 12.—**Rochester.**—EXTENSION.—Extension of Rochester Post Office, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit, £1 1s. (Cheques payable to the Commissioners, H.M. Office of Works, &c.)

✱FEBRUARY 13.—**Dartford.**—POST OFFICE AND TELEPHONE EXCHANGE.—Erection of a new post office and telephone exchange at Dartford, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. (Cheques payable to the Commissioners, H.M. Office of Works, &c.)

✱FEBRUARY 13.—**Herts.**—HOUSES.—Erection of 21 pairs of houses at Shenley-road; also six pairs of houses at Hillsick-avenue, Boreham Wood, for the Barnet R.D.C. Mr. A. J. Wilshire, Surveyor to the Council, Council Offices, Boreham Wood, Herts. Deposit £2 2s., by cheque.

FEBRUARY 14.—**Tewkesbury.**—HOUSES.—For erection of 12 houses at the Priors Ground site, for the C.B. Mr. H. Alec Badham, Town Clerk, High-street. Deposit £2 2s.

FEBRUARY 28.—**Wimborne Minster.**—COTTAGES.—For erection on the Leigh Park estate, Wimborne, of 30 non-parlour cottages, in five blocks of six, for the U.D.C. Mr. C. W. Prance, Surveyor, Council Offices, Wimborne. Deposit £3 3s.

NO DATE.—**Perth.**—SCHOOL.—For excavator, concrete, and brick works, carpenter, and joiner works, slater and roughcast works, plumber work, plaster work, glazier work in connection with the erection of a proposed new school and schoolhouse at Forehill, for the Perthshire E.C. Mr. B. Martin Bates, Executive Officer, Education Offices, Perth.

NO DATE.—**Richmond (Yorks).**—ADDITIONS.—For alterations and additions to St. Nicholas, for the Marquess of Zetland. Mr. F. W. Hall, Olliver, Richmond, Yorks.

FURNITURE, MATERIALS, etc.

JANUARY 24.—**Chelmsford.**—MATERIALS.—For supply of stoneware pipes, broken granite, &c., for the Essex C.C. Mr. Wm. H. Morgan, Chartered Civil Engineer, County Surveyor, Old Court.

JANUARY 24.—**Exeter.**—MATERIALS.—For supply of granite, basalt, limestone. Mr. F. E. Simpson, County Surveyor, 21, Southernhay West, Exeter.

JANUARY 24.—**London.**—MATERIALS.—For supply of granite, lime, cement, wood paving blocks and iron and steel, &c., for the Paddington B.C. Mr. W. F. Abbiss, Town Clerk, Town Hall.

JANUARY 26.—**Lincoln.**—STONE.—For supply of broken stone and slag, refined tar, for the Lindsey (Lincs) C.C. Mr. A. G. Bradshaw, F.S.I., County Surveyor, Newland House.

JANUARY 26.—**Sleaford.**—GRANITE.—For supply of granite, slag, gravel, for the R.D.C. Mr. E. H. Godson, Clerk to the Council, Council Offices, Northgate.

JANUARY 26.—**Uckfield.**—MATERIALS.—For supply of 500 tons of granite, 7,450 tons of Mendip or Kentish ragstone, and 250 tons of gravel, for the R.D.C. Mr. J. G. Cruttenden, Clerk, 3, Church street.

JANUARY 26.—**Wakefield.**—MATERIALS.—For supply of granite and whinstone, sand and gravel, stoneware pipes, cast-iron gulley grates and frames, for the West Riding C.C. Clerk of the County Council, County Hall.

JANUARY 27.—**Willesden.**—MATERIALS.—For supply of artificial slab paving, gravel, flints, broken granite and slag, lime, cement, and stoneware pipes, &c. Mr. E. A. Pratt, Clerk to the Council, Town Hall, Dyne-road, Kilburn, N.W.6.

JANUARY 28.—**Caistor.**—GRANITE.—For supply of granite, slag, chips, tarred slag, &c., for the R.D.C. Mr. A. A. Padley, Clerk, Council Offices, Caistor.

JANUARY 31.—**Aylesbury.**—GRANITE.—For the supply of broken granite, slag, for the Bucks C.C. Mr. E. Winfield, County Surveyor, Lloyd's Bank Chambers.

JANUARY 31.—**Beverley.**—LIMESTONE.—For supply of whinstone chippings, limestone, and kerb and channelling, for the East Riding of Yorkshire C.C. Mr. J. Bickersteth, Clerk of the Council, County Hall.

JANUARY 31.—**Canterbury.**—MATERIALS.—For supply of broken Guernsey granite, kerb and channel granite, stoneware pipes, bends, junctions and street gullies, Portland cement, timber, bricks, shingle and sand, for the T.C. Mr. P. H. Warwick, City Surveyor and Engineer, City Surveyor's Department, Municipal Buildings.

JANUARY 31.—**Cheltenham.**—CEMENT.—For supply of Portland cement, for the C.B. Mr. J. S. Pickering, Borough Engineer, Municipal Offices.

JANUARY 31.—**Glamorgan.**—MAIN ROADS.—For supply of road material, kerbing of footways, &c., for the C.C. Mr. G. A. Phillips, County Surveyor, County Surveyor's Department, County Hall, Cardiff.

JANUARY 31.—**Worcester.**—GRANITE.—For supply of granite and slag, for the Worcestershire C.C. Mr. C. F. Gettings, M.Inst.C.E., County Surveyor, 30, Foregate-street.

FEBRUARY 2.—**Bury St. Edmunds.**—MATERIALS.—For supply and delivery of broken and unbroken road material, unbroken pit stone, for the West Suffolk C.C. Mr. E. H. Bond, County Surveyor, Shire Hall.

FEBRUARY 2.—**Little Hulton.**—GRANITE.—For supply of broken granite, 4 in. by 5 in. granite setts, limestone and slag chippings, grit kerbs, stoneware pipes and gullies, cement, for the U.D.C. Mr. J. H. Heyes, Clerk, Council Offices, Little Hulton, near Bolton.

FEBRUARY 3.—**Hatfield.**—MATERIALS.—For supply of granite, slag, &c., for the Hertfordshire C.C. Mr. A. E. Prescott, County Surveyor, County Surveyor's Office.

✱FEBRUARY 4.—**Dover.**—PORTLAND STONE SLABS OR PANELS.—Firms desirous of being placed on a panel of firms who will be selected, and may be invited to tender for about 1,200 Portland stone slabs or panels engraved with lists of names and ranks, &c., for the Imperial War Graves Commission. The Secretary (Works Department), 82, Baker-street, London.

FEBRUARY 4.—**London, S.W.11.**—SUPPLY OF STORES, &C.—For three, six, and twelve months' supply of various paints, enamels, varnishes, bricks, and cement, horse hire, &c., for the Battersea Borough Council. Town Hall, Lavender Hill, S.W.11.

FEBRUARY 5.—**Isle of Ely.**—GRANITE.—For supply of granite slag, for the C.C. Mr. R. S. W. Perkins, County Surveyor, County Surveyor's Office, Lynn-road, Wisbech.

FEBRUARY 7.—**Wokingham.**—GRANITE.—For supply of granite, limestone and gravel, for the R.D.C. Mr. A. H. Prince, District Surveyor, Council Offices, Board Room, Barkham-road.

FEBRUARY 7.—**Worthing.**—GRANITE.—For supply of about 600 tons of ¾ in. clean granite chippings, 100 tons of granite dust, 300 tons of 2 in. broken slag, or 300 tons of 2 in. tarred slag, for the C.B. Mr. J. Kennedy Allerton, Town Clerk. Municipal Offices.

FEBRUARY 11.—**London.**—GRANITE.—For supply of about 700 tons of 2 in. machine-broken Clee Hill granite and ¾ in. granite chippings, 3,000 tons of clean granite chippings for tar-painting work, for the Middlesex C.C. Mr. A. Dryland, County Engineer, County Engineer's Department, Middlesex Guildhall, Westminster, S.W.1.

FEBRUARY 11.—**London.**—MATERIALS.—For supply of broken granite, ballast, hoggin, shingle, and sand, cement and lime, for the Shoreditch B.C. Mr. J. A. D. Milne, Town Clerk, Shoreditch Town Hall, Old-street, London, E.C.2.

✱FEBRUARY 11.—**London, E.C.1.**—STORES.—Tenders ofr the supply of stores, &c., for the periods of six or twelve months, commencing April 1, 1925 (as the Board may decide) for the Metropolitan Water Board. Chief Engineer, Metropolitan Water Board, New River Head, 173 Rosebery-avenue, E.C.1, by personal application (Room 156), or upon forwarding a stamped addressed brief envelope.

FEBRUARY 12.—**Leeds.**—GRANITE.—For supply of 1,500 tons of ½ in. whinstone or granite chippings and 500 tons of ¾ in. whinstone or granite chippings, for the T.C. Mr. J. B. Hamilton, Commercial Manager, Highways and Permanent Way Department, 1, Swinegate.

✱FEBRUARY 12.—**London, S.W.2.**—MATERIALS and SERVICES.—Supply of various materials and services from March 31, 1925, for various periods for the Lambeth Borough Council. Mr. Osmond Cattlin, Assoc.M.Inst.C.E., Chartered Civil Engineer, Borough Engineer, Town Hall, Brixton Hill, S.W.2, on personal application or by post upon receipt of a stamped addressed envelope.

MARCH 7.—**Marple.**—GRANITE.—For supply of granite and chippings, limestone and chippings, sanitary pipes, grit setts, for the U.D.C. Mr. J. Freeman, Clerk to the Council, Council Offices.

JUNE 3.—**South Africa.**—PIPES.—For supply and delivery of approximately 33 miles 33 in. diameter steel pipes and specials cement lined, for the Cape Town T.C. Mr. J. R. Finch, Town Clerk, City Hall. Deposit £5 5s.

ENGINEERING, IRON AND STEEL.

JANUARY 24.—**Blackpool.**—BRIDGES.—For three steel trough bridges to carry water pipes, for the Fylde Water Board. Mr. Geo. F. Atkinson, Engineer, Head Office, Sefton-street.

JANUARY 27.—**London.**—STEELWORK.—For supply of steelwork for bridges. The Great Indian Peninsula Railway Co., 48, Copthall-avenue, E.C.2.

FEBRUARY 7.—**Chipping.**—RECONSTRUCTION.—For reconstruction of Lanshaw bridge, the widening and improvement of Radcliffe bridge at Radcliffe, and the widening and improvement of Lunt bridge at Widnes, for the Lancashire C.C. Mr. G. Hammond Etherton, Clerk of the County Council, County Offices, Preston.

✱FEBRUARY 11.—**London, E.C.**—STEELWORK.—For floor strengthening (supply and erection of structural steelwork), at the G.P.O. (South), E.C., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit, £1 1s. (Cheques payable to the Commissioners H.M. Office of Works, &c.)

FEBRUARY 23.—**Clifton.**—BRIDGE REPAIR.—For strengthening of the anchorages of the Leigh Woods side of Clifton Suspension Bridge, for the Bridge Co. Mr. J. G. Dennehy, Secretary to the Clifton Suspension Bridge Co. Deposit £3 3s.

FEBRUARY 25.—**Madras.**—SLUICES.—For supply and delivery of 24 in. and 27 in. diameter cast-iron wall sluices, with pillars and headstocks, fitted with gun-metal faces, adjustable wedge blocks and bolts, &c., for each wall sluice complete, for the Corporation. Messrs. J. Mansergh & Sons, Agents to the Corporation of Madras, India, 5, Victoria-street, S.W.1.

MARCH 13.—**London.**—STEEL.—For supply of structural steelwork and steelwork for bridges, for the South Indian Railway Co. Mr. A. Muirhead, Managing Director, 91, Petty France, S.W.1

MARCH 21.—**Portugal.**—PORT.—For construction of the commercial port of Vila Real de Santo Antonio, Southern Portugal. Department of Overseas Trade, 35, Old Queen-street, S.W.1. (Reference No. A.X. 1630.)

MAY 15.—**Siam.**—STEEL.—For supply of superstructure of steel railway bridges, for the Royal State Railways. Commissioner-General, Bangkok.

ROAD, SANITARY, AND WATER WORKS.

JANUARY 24.—**Ilford.**—PAVING.—For levelling, paving, metalling, channelling and making good (*a*) Hickling-road and (*b*) Clarence-avenue, for the U.D.C. Mr. Adam Partington, Clerk of the Council, Town Hall. Deposit £2 2s.

JANUARY 24.—**Manchester.**—SEWERS.—For sewering, draining, flagging, paving, &c., Pine-road, Didsbury, from Parkfield-road to Elm-road; draining, flagging, paving, &c., Lindsay-avenue, Rusholme, from Sladelane, and draining, flagging, &c., Allandale-road, Rusholme, from Collingwood-road to Lindsay-avenue, from Lindsay-avenue to Lytham-road, and from Lytham-road to Kingsway, for the T.C. Mr. P. M. Heath, Town Clerk, Town Hall. Deposit £1 1s.

JANUARY 26.—**Aberdeen.**—TANK.—For laying-out of an irrigation field and the construction of a small concrete tank at Dinnet Station, L.N.E.R., for the Corporation Waterworks. Mr. G. Mitchell, Water Engineer's Office. Deposit £2 2s.

JANUARY 26.—**Axminster.**—IMPROVEMENT.—For improvement of the existing road between Tanyard Cross and Axmouth Bridge, for the R.D.C. Mr. Cecil Forward, Clerk. Deposit £3 3s.

JANUARY 26.—**Coulsdon and Purley.**—MAKING-UP.—For making-up of Purley-rise, Purley, and Windermere-road, Coulsdon, for the U.D.C. Mr. E. C. King, Clerk to the Council, Council Offices, Purley. Deposit £2 2s.

JANUARY 26.—**Finchley.**—IMPROVEMENTS.—For improvement works in East End-road, for the U.D.C. Mr. E. H. Lister, Clerk of the Council, Council Offices, Finchley, N.3. Deposit £2.

JANUARY 26.—**Near Newcastle-on-Tyne.**—ROADS.—For reconstruction, widening, kerbing, sett paving, &c., of the Gateshead and Hexham and Carlisle main roads, for the Northumberland C.C. County Surveyor, Moot Hall, Newcastle-on-Tyne. Deposit £2 2s.

JANUARY 26.—**Sale.**—WIDENING.—For reconstruction and widening of part of Dane-road, for the U.D.C. Mr. D. Hallewell, Clerk to the Council, Town Hall. Deposit £2 2s.

✱JANUARY 26.—**West Bromwich.**—SEWAGE WORK, &C.—Carrying out of sewage and sewage disposal works on the estate, Great Barr Park, near Birmingham, for the Walsall and West Bromwich Unions Joint Committee. Mr. A. H. Ward, Clerk, 22, Lombard-street, West Bromwich. Deposit £3 3s.

JANUARY 27.—**Amman Valley.**—SEWERS.—For construction of about 8 miles of stoneware and concrete pipe sewers, together with manholes (and certain lengths

of cast iron pipes for river and railway crossings), in the Amman Valley, together with outfall works, for the Joint Sewerage Board. Mr. T. M. Evans, M.A., Solicitor, Clerk to the Joint Board, Ammanford, Carmarthenshire. Deposit £5 5s.

JANUARY 27.—**City of Leeds.**—FENCING.—For (1) supply and delivery of wrought iron fencing at Meanwood recreation ground; and (2) the supply and erection of wrought iron or cast-iron ornamental fencing at Wetherby-road, for the T.C. Mr. W. T. Lancashire, City Engineer, Municipal Buildings.

JANUARY 27.—**Dundalk.**—WATER SUPPLY.—For carrying out, completion, &c., of the extension of water supply, for the U.D.C. Mr. M. Comerford, Town Clerk, Town Clerk's Office, Town Hall. Deposit £5.

JANUARY 27.—**Southall-Norwood.**—ROAD.—For construction of a new road between King-street and Western-road, for the U.D.C. Mr. J. B. Thomson, Engineer and Surveyor, Town Hall.

JANUARY 28.—**Ayr.**—WORK.—For construction of sewers and sewage disposal works at Tarbolton Village, about 7 miles from Ayr, for the D.C. Mr. R. Welsh, 21, Wellington-square, Ayr. Deposit £1 1s.

JANUARY 28.—**Birmingham.**—ROADS.—For widening and reconstruction of (1) Belchers-lane, Bordesley Green, and (2) Robin Hood-lane, Hall Green, for the T.C. Mr. H. H. Humphries, City Engineer and Surveyor, The Council House. Deposit £2 each.

JANUARY 28.—**Birmingham.**—TRAMWAYS.—For construction of tramways, Alum Rock-road and Bordesley Green (from the present tramway terminus in Alum Rock-road to Sladefield-road, and from the present tramway terminus in Bordesley Green, along Bordesley Green and the New-street across Batchelor's Farm), for the T.C. Mr. H. H. Humphries, M.Inst.C.E., City Engineer and Surveyor, The Council House.

JANUARY 28.—**London, S.W.17.**—PAVING.—For providing and laying terrazzo paving to male pavilions at Tooting Bec Hospital extensions, Church-lane, for the Metropolitan Asylums Board. The Office of the Board, Victoria Embankment, E.C 4. Deposit £1.

JANUARY 29.—**Watford.**—ROADS.—For construction of 700 yards lin. of new roads, 1,500 yards lin. of new sewers and 750 yards lin. of existing roads on housing estate, at Wiggenhall, for the C.B. Mr. W. Hudson, Town Clerk, Municipal Offices, 14, High-street. Deposit £2 2s.

JANUARY 31.—**Carmarthenshire.**—ROADS.—For removing shale rock and building banks, &c., at Bargoedbridge, Henllan, removing shale rock and building retaining walls, &c., at the Old Toll House, near Llandyssul, erecting masonry retaining wall, &c., at Dolgwm, near Cwmduad, erecting masonry retaining wall, removing shale rock, &c., at Dolwen Mill, near Cwmduad, removing shale rock, widening masonry bridge, &c., at White Mill, Abergwili, and removing shale rock, building retaining wall, &c., at Dolgwm Mill, Pencarreg, near Lampeter, for the C.C. Mr. R. W. Jones, County Surveyor, County Offices, Carmarthen. Deposit £2 2s.

JANUARY 31.—**Clayton-le-Moors.**—SEWER.—For laying of 870 lineal yards of 12 to 15 in. earthenware pipe sewer, between Hyndburn Bridge and Sparth-road, in Whalley-road, for the U.D.C. Mr. A. Dodgeon, Surveyor to the Council, Council Offices.

JANUARY 31.—**Egham.**—DRAINS.—For laying surface water drain and reconstruction of footpath in St. Judes-road, Englefield Green, for the U.D.C. Mr. G. W. Booth, Engineer and Surveyor, Engineer and Surveyor's Office, Council Offices.

JANUARY 31.—**Feckenham.**—SEWERS.—For the provision, laying and jointing of 240 lineal yards of 18 in. and 15 in. diameter stoneware and cast-iron pipe sewers, and construction of manholes, detritus tanks, sedimentation and storm tanks, bacterial filters, humus tanks and sludge beds, for the R.D.C. Mr. E. Dyer, Clerk to the Council, Council Offices, Astwood Bank, near Redditch. Deposit £5 5s.

JANUARY 31.—**Ince-in-Makerfield.**—MAKING-UP.—For making-up of certain streets within the district, including sewering, levelling, metalling, kerbing, channelling, flagging, and all other works in connection therewith, for the U.D.C. Mr. A. F. Howgate, Clerk, Council Offices, Ince, near Wigan. Deposit £2 2s.

JANUARY 31.—**Mull.**—ROAD.—For construction of 1,400 yds. of roadway in the Island of Tiree, for the D.C. Mr. D. M. Mackinnon, Mull District Clerk, County Buildings, Oban.

JANUARY 31.—**Nuneaton.**—WIDENING.—For widening, straightening and improving Ansley-road. Mr. R. C. Moon, Borough Surveyor and Engineer, Municipal Offices. Deposit £2 2s.

JANUARY 31.—**Stretford.**—ROADS.—For paving Galgate-street, part of St. John's-road, Garden-avenue, part of Henshaw-street, Mellor-street, part of Milton-road, Woodlands-avenue, passage between 19–21, Mellor-street and passage rear of 8–20, Moss-road, for the U.D.C. Mr. Geo. H. Abrahams, Clerk, Stretford Council Offices, Old Trafford. Deposit £2 2s.

FEBRUARY 2.—**Westminster Bridge.**—REPAVING.—For the repaving with wood blocks and subsequent maintenance of the carriageway of Westminster Bridge, for the L.C.C. The Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £3.

FEBRUARY 3.—**New Hunstanton.**—MAINS.—For laying of 490 lineal yards of 5 in. and 3 in. cast iron mains, and appurtenant works, for the U.D.C. Mr. F. Wilkinson, Engineer and Surveyor, Town Hall. Deposit £1 1s.

FEBRUARY 3.—**St. Albans.**—DRAINAGE.—For main drainage of London Colney, consisting of sewers, manholes, outfall works, ejector chambers, engine house, &c., for the R.D.C. Mr. E. F. W. Hieatt, Clerk, Union Offices. Deposit £3 3s.

FEBRUARY 4.—**Birkenhead.**—SEWERS.—For sewering, making, and completing of the roads on Tranmere Hall estate, for the C.B. Mr. E. W. Tame, Town Clerk, Town Hall. Deposit £1 1s.

FEBRUARY 6.—**Bexhill.**—MAKING-UP.—For making-up Richmond-road, part of Cooden-drive, Westcourt-drive, and part of Collington-avenue, for the C.B. Mr. S. J. Taylor, Town Clerk, Town Hall. Deposit £1 1s.

FEBRUARY 7.—**St. Mellons.**—ROADS.—For construction of (1) about 780 lin. yards of 16 in. diameter cast iron pipe sewer laid partly in tunnel; (2) about 500 lin. yards of 13 in. diameter cast iron pipe sewer, laid as No. 1; (3) about 860 lin. yards of 12 in. diameter stoneware pipe sewer; (4) about 760 lin. yards of 9 in. diameter stoneware pipe sewer; (5) about 480 lin. yards of 6 in. diameter stoneware pipe sewer; (6) construction of accommodation road, including the provision of about 4,000 cubic yards of filling; and (7) manholes, ventilating shafts and other appurtenant works, for the R.D.C. Messrs. Thomas & Morgan & Partners, Civil Engineers, Pontypridd. Deposit £10 10s.

FEBRUARY 9.—**Birmingham.**—RESERVOIR.—For construction of the Bartley reservoir, on a site adjoining the existing reservoir at Frankley, for the T.C. Mr. J. H. Broadley, Secretary, Water Department, Council House, Edmund-street. Deposit £10.

FEBRUARY 9.—**Caerphilly.**—STREET WORKS.—For paving, kerbing, sewering, forming and metalling, &c., of five streets or approach roads, three streets at Abertridwr, and two streets at Nelson. Mr. T. H. Richards, surveyor, Council Offices. Deposit £22.

✱FEBRUARY 10.—**London, E.**—WATER MAIN.—Providing and laying a 6 in. cast-iron water supply pipe from an existing main to the men's bathing lake at Victoria Park, London, E., for the London County Council. Chief Officer, Parks Department, The County Hall (Room 393e), Westminster Bridge, S.W.1.

FEBRUARY 10.—**Thornton.**—STREET WORKS.—For making up of Cleveleys-avenue, Whiteside-way, Stockdove-way, West-drive, and Brown-street, for the U.D.C. Mr. R. Bowman, Clerk to the Council, Council Offices, Blackpool-road, Thornton, Blackpool.

Competitions.

(*See Competition News, page* 140.)

Auction Sales, Tenders, etc.

JANUARY 27.—**London, W.12.**—Mr. F. H. Clark will sell, without reserve, at C.S.D., 401, Wood-lane, Wormwood Scrubbs, W. 12, near Wood-lane Station, Central London Railway, final sale of timber, corrugated iron, and building materials. Auctioneers, Railway Wharf, York-road, Wandsworth, S.W. 18.

✱JANUARY 27 AND FOUR FOLLOWING DAYS.—**Malvern.**—Messrs. Ingman & Mills will sell at Blackmore Park, Malvern (unless previously disposed of privately), mansion for demolition purposes. Auctioneers, 47, Foregate-street (opposite G.P.O.), Worcester.

✱JANUARY 27.—**Stockwell, S.W.**—Messrs. Veryard & Yates, F.A.I., will sell, without reserve, timber, fittings, and building materials, at 255, Clapham-road, at 1.30. Auctioneers, 365, Norwood-road, S.E. 27.

✱JANUARY 28.—**Bromley (Kent).**—Messrs. Charles R. Davis & Co. will sell (by order of the Trustee, *re* F. W. Atkins, in bankruptcy), the stock-in-trade and plant of a builder and decorator, at No. 41, College-road and 82, London-lane, at 11 o'clock. Auctioneers, 285, Borough High-street, S.E. 1.

✱JANUARY 28.—**Derby.**—Messrs. D. Page & Sons are favoured with instructions from the Derby Corporation (Markets Committee) to sell stancheons and joists, excellent steel shafting, &c., from dismantling of Old Market. Auctioneers, 33, Wardwick, Derby.

✱FEBRUARY 2.—**Wimbledon Common.**—Messrs. Veryard & Yates, F.A.I., will sell, without reserve, timber and building materials from demolition of mansion at "Wressil Lodge," Park-side, at 1 o'clock. Auctioneers, 365, Norwood-road, S.E. 27.

✱FEBRUARY 3.—**Bournemouth.**—Messrs. Hankinson & Son will sell, by order of the Mortgagee (unless previously disposed of), at the Central Hotel, Bournemouth, freehold premises known as Newland's Lorry Garage, at Pokesdown, Bournemouth, vacant possession. Auctioneers, The Square, Bournemouth.

✱FEBRUARY 5.—**London, S.W.**—Messrs. Arrow & Sells will sell (by order of the Receiver for the Debenture holders), at the Works, Post Office-approach, High-road, Balham, pattens, machinery, plant, and stock of the art metal workers and craftsmen. Auctioneers, 6, Station-parade, High-road, Balham, S.W. 12.

✱FEBRUARY 10.—**London, N.**—Messrs. Joseph Hibbard & Sons will sell, without reserve (by order of Messrs. Sheffield Bros., Ltd., who are retiring from business, and who have disposed of the lease of premises), upon the premises, Shacklewell Works, Downs Park-road, E. 8, the stock and plant of builders and contractors. Auctioneers, 15, Newington-green, Islington, London, N. 16.

APRIL 2.—**London, W. 1.**—Messrs. Knight, Frank & Rutley will sell, in Hanover Estate Room (unless previously sold privately), long leasehold residential property, Brondesbury House, 221, Willesden-lane, N.W. Grounds about 4 acres, forming eligible building site. Lease about 977 years. Ground rent, £106 per annum. Vacant possession. Auctioneers 20, Hanover-square, London, W. 1.

Public Appointments.

JANUARY 23.—**Gloucester.**—Temporary Architectural Assistant required in the office of the Architect to the Education Committee, by the Gloucestershire C.C. Mr. R. S. Phillips, Architect to the E.C., Shire Hall, Gloucester.

JANUARY 24.—**London, S.W.7.**—Foreman of Works required by the Board of Education in the Science Museum. The Director, Science Museum, South Kensington, London, S.W.7.

JANUARY 26.—**London.**—HYDRANT INSPECTOR.—Appointment as hydrant inspector in the department of the Chief Officer of the Fire Brigade required by the London County Council. Clerk to the Council, County Hall, Westminster Bridge, S.E.1.

JANUARY 27.—**Romford.**—Temporary appointment of Building Inspector in the Surveyor's Department required by the Romford R.D.C. Mr. T. W. A. Greenhalgh, Clerk to the Council, 16A, South-street, Romford.

✱JANUARY 28.—**Bristol.**—TEMPORARY DRAUGHTSMAN.—Temporary draughtsman required by the City and County of Bristol. Mr. C. F. Dawson, City Estates Surveyor and Valuer, The Exchange, Corn-street, Bristol.

JANUARY 30.—**Liverpool.**—Chief Assistant required in the Housing Department for whole-time appointment by the Council of the City of Liverpool. The Town Clerk (Housing and Improvement Department), Municipal Buildings, Liverpool, endorsed "Chief Assistant, Housing Department."

✱JANUARY 31.—**Carlisle.**—Chief Architectural Assistant required by the Cumberland County Council in the office of the County Architect. Mr. J. Forster, F.R.I.B.A., County Architect, The Courts, Carlisle, endorsed "Chief Assistant."

✱FEBRUARY 2.—**Blackburn.**—Engineering Assistant who has specialised in constructional steel and reinforced concrete work required by the Blackburn Borough Council. Mr. A. T. Gooseman, M.Inst.C.E., Borough and Water Engineer, Town Hall, Blackburn.

✱FEBRUARY 2.—**Portsmouth.**—Permanent Engineering Assistant to the Borough Engineer required by the Portsmouth Borough Council. Mr. Arthur W. Ward, Borough Engineer, Town Hall, Portsmouth.

✱FEBRUARY 2.—**Ramsgate.**—Qualified Town Planning Assistant required in the Borough Engineer's Department by the Ramsgate Borough Council. Mr. T. G. Taylor, Borough Engineer, Ramsgate.

✱FEBRUARY 2.—**Staffordshire.**—Draughtsman in the Architect's Department required by the Staffordshire Education Committee. The Architect, County Education Offices, Staffordshire.

FEBRUARY 4.—**London, N.1.**—Clerk of Works required by Metropolitan Borough Council of Islington in connection with the Laycock-street housing scheme. Council's Architect, Mr. E. C. P. Monson, F.R.I.B.A., F.S.I., &c., Finsbury-pavement House, 120, Moorgate, E.C.2.

✱FEBRUARY 7.—**South Africa.**—Senior Lecturer in Architecture required at the University of the Witwatersrand, Johannesburg, South Africa. Secretary, Office of the High Commissioner for the Union of South Africa, Trafalgar-square, London, W.C.2.

✱NO DATE.—**Near Coventry.**—Clerk of Works required to take charge of the erection of public elementary school near Coventry. Mr. A. C. Bunch, F.R.I.B.A., County Architect, 27, Binswood-avenue, Leamington Spa.

✱NO DATE.—**Sudan.**—FOREMAN OF WORKS.—Foreman of works required by the Sudan Government Railways. Candidate should be general building foreman, be able to prepare estimates, and have some practical knowledge of reinforced concrete work. The Controller, Sudan Government, Wellington House, Buckingham-gate, S.W. 1, marked "Foreman of Works, Railway Department."

Obituary.

The death has taken place of Mr. C. M. Strange, who was the principal in the firm of Strange & Sons, builders and contractors, of 34, London-road, Tunbridge Wells, and afterwards chairman of Messrs. Strange & Sons, Ltd., of Tunbridge Wells, Tonbridge, Sevenoaks, and Bexhill.

The death occurred recently, at Newcastle, of Mr. Richard Heslop, aged 71, formerly a well-known member of the Tyneside building industry, and a Past-President of the Newcastle Master Builders' Association.

The death has occurred of Mr. W. H. T. Kelland, the principal of Messrs. W. H. T. Kelland & Sons, Ltd., Stoke Newington, N.16, the firm which he founded and developed, together with the joinery manufactory carried on at Hornsey Rise. The funeral took place at Abney Park Cemetery.

Builders' Estates.

Mr. James Samuel Procter (66), of West End-road, Morecambe, retired builder (net personalty, £3,981), £10,612.

Mr. James Thompson, of Highbury-place, Blackburn, builder (net personalty, £1,176), £6,251.

Mr. George Hawley, Buckminster, Leicestershire, farmer and builder, £13,236.

Mr. Richard Beautyman Heslop, Sunbury-avenue, Newcastle-on-Tyne, builder (net personalty, £3,228), £12,791.

The will has been proved of the late Mr. Thomas Taylor, Holly House, Pontypridd, builder and contractor, and mining contractor, who died on September 1 last. Gross estate amounted to £453,911 2s. 9d., and net personalty to £401,793 15s. 5d. Mr. Taylor was one of the principal public works, roads and drainage schemes' contractors in Wales.

PROPOSED NEW BUILDINGS & OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; and B.E. for Board of Education.

ABERYSTWYTH.—The M.H. has sanctioned the acquirement of land at Mill-street, near the Drill Hall, by the B.C., on which to erect houses, and the borrowing of £3,989 for the erection by the council of six houses.

ALVERLEY EDGE.—It has been decided to add a boys' colony to the Great Warfold Epileptic Institution, which is expected to cost between £16,000 and £20,000.

ALTRINCHAM.—The D.S. has been instructed to prepare plans for the erection of 40 houses. The Manchester and Salford Equitable Co-operative Society are preparing plans for 34 houses, to be erected on a site in Gladstone-road.

ANTRIM.—The R.D.C. has decided to proceed with a scheme for the erection of 44 houses, and have decided to advertise for an architect to carry out the scheme.

ASHTON-UNDER-LYNE.—The T.C. are to apply to the M.H. for sanction to erect a further 200 houses.

ASPULL.—Plans have been approved for the erection of an outbuilding at St. Wilfred's Church. The C.C. are considering the purchase of Christ Church Mission, to be used as a special subject centre.

BALBY.—The Doncaster Corporation has authorised the Public Health Committee to proceed with the arrangements for the erection of a new infectious diseases hospital.

BALLYMONEY.—The Surveyor to the T.C. has reported that it would take about £5,000 to repair the present town hall. A suggestion was made that a new town hall should be erected.

BARKING TOWN.—The U.D.C. has agreed to give the subsidy to Messrs. E. H. Glenny & Son, in respect of fourteen houses to be erected in Norfolk-street.—Plans passed: Factory, London-road, for East London Cold Storage Co., Ltd.; 26 houses, Faircross estate, for Mr. C. Gray; three shops, North-street, or Mr. J. F. Hardwick.—Messrs. Fasey & Son, Ltd., have agreed to conform to certain M.H. suggestions in order to qualify for subsidy for 49 houses to be built in Movers-lane.

BARNES.—The U.D.C. are to erect 26 more houses.

BARNET.—The U.D.C.'s Surveyor (Mr. E. Scott) has submitted a draft lay-out showing a main road from Bells-hill to Wellhouse-lane and two subsidiary roads, and room for 235 houses.—The question of the erection of steel houses is to be considered.

BARNETBY (LINCS.).—A new Methodist Chapel is to be erected. Architects are Messrs. Gelder & Kitchen, of Hull. Estimated cost is £5,000.

BARNSLEY.—The T.C. passed plans: Whitehead & Savage, lock-up shop, Barnsley-road, Stairfoot; A. Murton, house Welbeck-street.

BATH.—The Corporation has sanctioned a £20,000 scheme for improving and extending the hot mineral baths.

BEDLINGTON.—The U.D.C. has decided to erect 78 houses at Sleekburn, and is making application for permission to borrow £35,160.

BELFORD.—Plans passed by the R.D.C.: Proposed semi-detached cottages at Beadnell, for E. Wilson (Mr. J. D. Wallace, architect).

BINGLEY.—The U.D.C. propose to erect 14 houses at Cullingworth, from plans prepared by Mr. H. Bottomley.

BIRMINGHAM.—The Catholics of Merry Hill have acquired a site for the erection of a church, house and schools for which plans are being prepared.

BLACKBURN.—The B.G. have instructed Mr. W. Stirrup, architect, to prepare plans for a new children's hospital, in accordance with the suggestions of the M.H.

BLACKPOOL.—The congregation of the Highfield-avenue Wesleyan Church, South Shore, are raising funds for the erection of a permanent church. Plans have been adopted for the erection of a new church for the Baptists at Whitegate-drive.

BLACKWOOD (MON.).—Public subscription, aided by a grant by the Miners' Welfare Committee, is to erect a Peace Memorial, in the form of a public hall and institute.

BOLTON.—Land has been acquired in Wigan-road by the Deane Conservatives for the erection of suitable club premises. A site on Manchester-road has been approved for the new technical school. Sanction of the M.H. is to be sought to the borrowing of £14,800 for the erection and furnishing of the proposed Devonshire-road Council school. The Rev. G. Walmsley, of the Starcliffe P.M. Church, Moses Gate, proposes to erect an extension to the school premises, estimated to cost £2,700. Plans prepared by Messrs. Ormrod, Pomeroy & Foy, architects, Bolton.

BOURNEMOUTH.—Work has now just started on the new buildings at the new racecourse. The architect is Mr. A. J. Taylor, of Bath.

BRADFORD.—The T.C. passed plans: E. Hillam, Speeton-avenue, two houses; Jas. Mellor and Holdsworth, Harewood-street, Fitzroy-road, and Sandford-road, eight houses; A. Chippendale, Salisbury-road, Frizinghall, six houses.—Plans have been approved for the erection of twenty additional houses by various private builders (all for subsidy), at Toller-lane, Lister-lane, Cottingley-road, and Conistone-road.

BRIDGEND.—A site for a new 40 beds cottage hospital is being sought by the governors of the hospital.

BRISTOL.—The T.C. passed plans for over 80 houses in Knowle, Bedminster Down, Fishponds, Avonmouth, and elsewhere in the City.—New shed accommodation at a cost of about £30,000 is to be provided at the docks.

BURNLEY.—Erection and equipment of large generating station on a site of 40 acres, adjoining the River Calder, at Padiham, for the Lancashire Electric Power Co., Ltd., 196, Deansgate, Manchester; consulting engineer, Mr. H. F. Parshall, D.Sc., Salisbury House E.C.2. Total cost will exceed £250,000.—The E.C. are considering the question of the provision of a new secondary school.

BURY.—The Borough Engineer has been instructed to erect dressing room accommodation, and to make arrangements for a paddling pool in the lay-out of the Clarence Recreation Ground. The whole scheme is estimated to cost £3,850. It has been decided to make an extension to the Museum.

BUSHEY (HERTS).—The Governors of the Royal Caledonian School have under consideration plans for an enlargement of their school buildings. The architect is Mr. F. W. Troup, F.R.I.B.A.

CARSHALTON.—A further housing scheme is to be carried out in this district on the Westmead estate, where about 400 detached and semi-detached villas are to be erected. The architect is Mr. H. Smith, of Westminster.

CHEADLE.—The R.D.C. passed plans: Bungalow, Werrington-road, Bucknall, for Mr. H. Tolley; bungalow Brookhouse-lane, Bucknall, for Mr. H. Home.

CHINGFORD.—The D.C. passed plans: House at the junction of Ranger-road and Forest-approach; four houses, Mayfield-road; eight houses, Whitehall-road; 72 houses, New-road.

CHORLEY.—The Baths Committee have approved the question of the provision of public baths for the town, and application for borrowing powers is to be made to the M.H.

CLACTON.—The U.D.C. are considering the erection of 39 houses in nine blocks of four and one block of three.

CLEVELEYS.—Plans for the erection of a working men's club in Slinger-street have been passed by the Thornton Council, and also plans for a pair of semi-detached houses in Corporation-road, for Mr. H. Shorrocks.

CLIFTHROE.—The members of the Conservative Club have in hand a scheme for the proposed erection of new premises in Castle-street, estimated to cost £20,000.

CLOWNE.—The R.D.C. has decided to invite tenders for the erection of 42 houses.

COLCHESTER.—Christ Church is to have a new parish hall.

COLLIERS WOOD.—A site at the corner of High-street and Bygrove-road has been purchased by the West Mitcham Improvement Association as the location for a public hall.

COLNE.—A scheme submitted by the B.S. has been approved by the Corporation for the erection of 60 houses on the Haverholt estate.

CONWAY.—The Guildhall is now being enlarged. Mr. Minshull, of Chester, is the architect.

DARTFORD.—A site occupying about 80 ft. on Horne's-hill has been bought by the Industrial Co-operative Society, Ltd., for the erection of new branch premises. Plans are being prepared under the direction of Mr. L. G. Ekins, chief architect to the Co-operative Wholesale Society, Ltd., Leman-street, E.C.1.

DENABY.—A new Wesleyan Chapel is to be erected with accommodation for 500 persons, at an estimated cost of £7,000, for the South Yorkshire Coalfield Commission, from plans by Messrs. Gelder & Kitchen, architects, of Hull.

DERBY.—A tender for 100 houses has been accepted by the Corporation.

DORCHESTER.—The T.C. has passed plans: Bungalow, Lorne-road, for Mr. F. Allen.

DOUGLAS (ISLE OF MAN).—The B.S. has been asked to report with respect to a more permanent formation of the Loch Promenade, with estimates of the probable cost. Plans passed: House, Devonshire-road, for Mrs. S. A. Quirk.

DROITWICH.—The Corporation has accepted a tender of £5,637 for the erection of twelve houses on the Woodfield site.

DUKINFIELD.—The T.C. propose to erect rows of cottages on various plots in the town. The Council's Architect, Mr. Gibson, has been instructed to prepare plans for the erection of houses on land off Hope-street.

EBBW VALE.—The Monmouthshire E.C. has decided to establish a mining instruction centre. The U.D.C. is to extend, at an estimated cost of £1,550, the river wall at Cwm.

EDINBURGH.—The Dean of Guild Court passed plans: T. Wallace Beach, 10 garages at Victor Park-terrace, Corstorphine; G. Douglas, house, corner of Drumbrae-road and Queensferry-road, Barnton; P. Scott, two bungalows at Hailes-gardens, Colinton.

EDLINGTON (YORKS.).—A police station is to be erected at a cost of about £7,000.

FARSLEY (YORKS.).—The U.D.C. propose to erect 30 houses.

FINCHLEY.—Mr. E. Woodley Pollard is about to develop the Willow Lodge estate.—Christ Church Council is to erect a mission hall in Summers-lane.—The Surveyor is to prepare plans for a handicraft centre at Albert-street.—Plans passed: Twenty-three houses, Fursby-avenue, for Messrs. C. F. Day, Ltd.; seven houses, Grove-road, for Mr. G. Green; four houses, Clarence Gardens, for Messrs. Cramb Bros., Ltd.; four houses, Finchley Park, for Messrs. Leak & Sons; 28 houses, Lansdowne-road, for Mr. J. Rainbird; house, Courthouse-gardens, for Messrs. Day, Ltd.

FLEETWOOD.—The T.C. have decided to erect six houses in Warrenhurst Park estate, and 46 houses on the Warren Farm estate.—The Council's Surveyor has been instructed to prepare plans for new sea defence works.

FOLKESTONE.—The T.C. are to amend the lay-out plans for houses in Rita-place and Wood-avenue.—Plan passed: House, Welson-road, for E. G. Mabley (architect, J. L. S. Dahl).—The Borough Engineer submitted an amended plan for a two storied cricket pavilion at the Sports Ground, the estimated cost of which is £5,500, and stated that he could amend and improve such plan and reduce the estimated cost to £5,000.

FRIERN BARNET.—The U.D.C. decided that land in the North and South Wards belonging to the Council should be reserved for approximately 100 houses.

GISBURN.—Sketch plans have been considered for the structural alterations to the Council school, estimated to cost £3,000.

GLAMORGAN.—Glamorgan Quarter Sessions justices decided that a new police court should be erected at Gowerton.—A road scheme of £400,000 is now being discussed by the C.C.

GLASGOW.—The Public Works Loan Commissioners have granted a loan of £380,000 to the Corporation for housing purposes.

GOODWICK.—The U.D.C. passed plans: Mr. J. Brinn, house at Glanymor-road.

GOSPORT.—The T.C. is to erect a new central school. Plans passed: Eight houses, Gordon-road, for Messrs. White & Sons; four houses, St. Andrew's-road, for Mr. G. Osgood; six houses, Brockhurst-road, for Mr. J. Jenner; two houses, Peel-road, for Mr. J. Hunt; house, Felix-road, for Mrs. Jenkins; house, Fareham-road, for Mr. G. Maynard; house, Fareham-road, for Mr. G. T. Maynard.

HAILSHAM.—The Engineer of the R.D.C. has been instructed to prepare plans for 16 houses, in two blocks of four each, on each of the two sites in South-road, Hailsham.

HALTWHISTLE.—The M.H. has approved of the purchase, by the R.D.C., of 2,852 acres of land at Greencroft Park, at £1,365, for housing purposes.

HANWELL.—The U.D.C. is negotiating for the purchase of Hopefield estate, for a housing scheme.—Plans passed: Six houses, Montague-road, for Mr. F. W. Lack; two houses, Shakespeare-road, for Mr. J. W. Allen.—The Middlesex C.C. is considering the provision of a secondary school for the district.

HASTINGS.—The large residence, known as Osborne House, at Ore, has been bought by the Shaftesbury Society & Ragged School Union. Structural alterations and new equipment are to be made to convert the property into a holiday home. Plans have been prepared by Mr. Percy Warman, architect.

HAZEL GROVE AND BRAMHALL.—The U.D.C. passed plans: House, Broadway, Bramhall, for Mr. G. Fryer; two houses, Grange-road, Bramhall, for Messrs. F. Hallows & Co.; four houses, Offerton-lane, for Mr. W. Bramwell; house, Highfield-road, Bramhall, for Mr. J. Holford; house, Carr Wood-road, for Mrs. E. G. Crosby; three houses, Bramhall Moor-lane, for Messrs. Unsworth & Wilson.

HECKMONDWIKE.—The Co-operative Industrial Society, Ltd., are to erect new central offices, at an estimated cost of £3,700.

HENDON.—The Council have plans for a new isolation hospital for about 70 beds.—The Council has accepted a £30,000 tender for Pinner-road improvements.

HEYWOOD.—The Corporation are recommending the erection of 20 houses on Barley Hall estate.

HINCKLEY.—The D.C. are to erect 26 houses in Ladies-lane, for which tenders are being invited.

HOLLINGBOURNE.—The R.D.C. approved plans: Warehouse, Morry House Farm, East Sutton, for Mr. John Payne; bungalow, Chegworth-road, Ulcombe, for Mr. A. Chapman; bungalow, Kingswood, Bloomfield, for Mr. Ellis.

HOUGHTON-LE-SPRING.—The R.D.C. has been granted a loan of £21,613 for the erection of 50 houses.

HURST.—The Housing Committee resolved at their meeting to apply to the M.H. for sanction to erect a further 200 houses.

IRTHLINGBOROUGH.—The Northamptonshire C.C. are to restore the Market Cross.

KEIGHLEY.—A new bridge is to be constructed across the River Aire at a cost of about £40,000.

LAURENCEKIRK.—The T.C. approved plans: Shop and house in High-street, by Mr. J. S. Souter.

LLANDILO.—The U.D.C. is to improve the accommodation at the Provision Market at an estimated cost of £4,050.

LLANELLY.—The Council's E.C. is to spend £51,627 in carrying out a schools building and improvement programme. The chief items of expenditure are: New Dock schools extension, £9,000; new school in Queen Mary's-walk, £27,000; extensions at boys' central school, £2,585; new lavatories, £2,500.

LLANTARNUM.—The U.D.C. is to erect houses at the Two Locks site, and has passed the Surveyor's plans. Plans passed: Mission hall, Wesley-street.

LONDON (ACTON).—The congregation of St. Mary's church propose to build a new rectory and a parish hall.

LONDON (DULWICH).—The erection of a Roman Catholic church is now being proposed. Contributions of £1,000 have already been given.

LONDON (FULHAM).—The B.C. are to consider spending £1,300 on improving the council chamber.—The L.C.C. is to build a terrace of working-class houses on Lilie-road fair ground.

LONDON (ISLINGTON).—A new L.C.C. school for 360 children is to be built at King Henry's-walk

* See also our Lists of Contracts, Competitions, etc.

LONDON (LEWISHAM).—Accommodation is to be provided for 200 nurses at the hospital.

LONDON (MARYLEBONE).—Messrs. Wallis, Gilbert & Partners have lodged plans for a new building in Marylebone-road and Watson's-mews.

LONGRIDGE.—A new secondary school is being proposed to be erected on the site of the "Old Wheat Sheaf" inn, in Kestor-lane.

LOUGHTON.—The U.D.C. has adopted a new housing scheme.

LURGAN.—The War Memorial Committee is to erect a temple of peace, constructed of granite, at a cost of about £3,000.

LUTON.—The T.C. passed plans: H. Buckmaster, boiler-house, 18, Crawley-road; N. Hill, four houses, Lincoln-road; C. Jeyes, house, Old Bedford-road; Luton Building Co., two houses, Dunstable-road; E. G. Bell, four houses, Dunstable-road; A. Hayward, two houses, Marlborough-road; F. J. W. Janes, Ltd., four houses, Holland-road; J. Sainsbury, Ltd., two shops and house, George-street; A. Carter, six houses, Colin-road; F. Chandler, house, Lansdowne-road; H. Tennant, 20 houses, Argyle-avenue; A. W. Butt, four houses, Dane-road; Mrs. C. Roberts, house, Stocking-stone-lane; A. Mardle, two houses, Claremont-road; W. J. Wells, two houses, Lincoln-road; W. J. Wells, eight houses, Dunstable-road.

LYTHAM ST. ANNES.—A sub-committee have recommended the Council to approve the ground plan for a new town hall; the completed scheme is estimated to cost £95,000. It has also been decided to advise the Council to approve the lay-out plan for the new Lytham baths. The provision of a girls' secondary school is under consideration by the E.C. A site has been secured at the corner of St. Annes-road West and Clifton-drive by Mr. J. H. Sharp, which is intended to be developed by the erection of shops and business premises.

MALDON, ESSEX.—A new Roman Catholic church is to be erected. Architects, Messrs. Scoles & Raymond, Basingstoke.

MALLOW.—The U.D.C. has under consideration tenders for rebuilding the town hall

MANCHESTER.—New sheds costing £200,000 are to be built at the Ship Canal Docks.—The Xaverian College are to have a new wing to their College.

MARCH.—The U.D.C. passed plans: House, Deerfield-road, for Mr. J. T. Fowler; house, Gaul-road, for Mr. C. E. Fox; house, Norwood estate, for Mr. H. W Speed; house, Badgeny-road, for Mr. F. Haworth; two houses, Deerfield-road, for Mrs. K. Dring; house, Norwood estate, for Mr. Harrison; house, County-road, for Mr. H. Plumb; house, Norwood estate, for Mr. H. Rignall.

MARKET BOSWORTH.—The R.D.C. approved plans for 50 houses proposed to be built by Messrs. H. Boote & Sons.

MERTHYR TYDFIL.—The T.C. is to erect 56 houses at Gellyfaelog, 90 houses at Troedyrhiw, 90 at Aberfan, and to proceed with the substitution housing scheme, the erection of houses at Dowlais and Cyforthfa, to replace insanitary dwellings.

MIDDLETON.—It is proposed that Parkfield House be purchased by the T.C. and to turn same into a town hall.

MID-GLAMORGAN.—The Mid-Glamorgan Water Board proposes to spend £121,500 on the buying of land and the construction of further water works.

MILDMAY PARK.—The managers of St. Jude's School propose to build a new elementary school for about 360 children in King Henry's-walk.

MOLESEY.—The Housing Committee is to consider the provision of 50 houses.

MONMOUTHSHIRE.—The Pontypool and District Hospital Governors are to proceed with an extension of hospital scheme that is estimated to cost £20,000.—The County E.C. is to extend the school accommodation at Bedwas.

MORECAMBE.—The T.C. has decided to submit a new scheme to the M.H. regarding the erection of 57 subsidy houses by Messrs. Edmondson Bros., Ltd.

MORLEY.—The T.C. has decided to proceed with a scheme for the erection of a town's war memorial.

MORPETH.—The R.D.C. has approved plans submitted by the Ashington Coal Co., Ltd., for the erection of an institute at Lynemouth.

NEASDEN.—New buildings are to be erected as an addition to the Britannia Pencil Works; the architect is Mr. A. S. Yeo, A.R.I.B.A.

NEATH (GLAM).—The Glamorgan C.C. projects the purchase, at an approximate cost of £20,000, of the Duffryn estate and mansion, for conversion into a hospital and instruction centre for the feeble-minded.

NELSON.—The T.C. has decided to erect public abattoirs, at an estimated cost of £38,000, subject to M.H. approval.—Sanction is to be sought to a scheme for the erection of a further 70 houses.

NEWBURN.—Steps are being taken to secure a site for the erection of a picture hall.

NEWBURY.—The T.C. has asked a committee to report as to the provision of additional houses.—Plans passed: House, Oxford-road, for Mr. S. H. Haggar; house, Monks-lane, for Dr. A. Simmons; house, Andover-road, for Mrs. F. Hughes.

NEWCASTLE.—The T.C. agreed to seek power to erect an additional 70 houses on the Pendower estate. Two steel houses are to be erected on the Walker estate, near Scrogg-road.—The City Council is obtaining land necessary for the construction of a road from Moorfield to the North-road.—Arrangements have been made for the Newburn Council to construct the proposed subway at Lemington.—Messrs. W. Wood & Co. propose to erect a block of business premises in Pudding Chare.—The City Council's Housing Committee has announced its intention of erecting 1,000 houses during 1925. A new site has been purchased, at a cost of £37,000.—The Housing Committee proposes to erect 550 houses and is now to invite tenders for erecting 300 of block concrete construction at High Heaton estate and 150 of similar construction at the Walker estate.—New sites for housing are to be purchased at Cowgate and Delaval.

NEW MALDEN.—The Maldens and Coombe U.D.C. has passed the following plans: Four houses, Blake's-lane, for Modern Homes and Estates; house, Selwyn-road, for Mr. Rheinlander; two houses, Selwyn-road, for Messrs. Claxton & Hermitage; house, Trap's-lane, for Mr. H. V. Kemp.

NEW MILLS.—Messrs. J. Garlick & Son, architects, Buxton, have been asked by the U.D.C. to prepare plans for the erection of 34 houses. Tenders are to be invited.

NEWPORT (I.O.W.).—The M.H. has sanctioned a loan of £8,760 for the erection of 18 houses on the Trafalgar estate.

NEWTON.—The R.D.C. passed plans: House, Lettaford, North Bovey, for Mrs. Hannaford; and lay-out plan of building site at Yarner, Bovey Tracey, for Dr. Fielding.

NORTHAMPTONSHIRE.—The C.C. are considering a £250,000 arterial road improvement scheme.

NORTHFLEET.—The U.D.C. is considering the advisability of erecting a slaughterhouse.—Plans passed: Three houses, Park-avenue, for Messrs. Dagnall Bros.—The U.D.C. has passed plans for four houses in All Saints'-road and two in Park-avenue, for R. Hopkins & Sons.

NORTHUMBERLAND.—The C.C. has a scheme for the purchase of Cresswell Hall and grounds of 100 acres, for providing accommodation for mental defectives.

OLDHAM.—The B.S. has been instructed to prepare plans and estimates for the erection of a pavilion at Alexandra-Park.

OSWALDTWISTLE.—The D.C. have approved plans for the erection of 16 houses on the Thwaites-road site.

OTLEY.—The U.D.C. has received the M.H. approval for the erection of another 50 houses on the Carr Green estate, in addition to the 75 already approved.

PADDOCK WOOD.—A new masonic hall is to be built to the plans of Mr. A. S. Kilby, of Tunbridge Wells, on the instructions of the Paddock Wood Freemasons' Hall, Ltd.

PENRITH.—The U.D.C. is considering sites for the erection of houses.

PENYBONT.—The M.H. has sanctioned the borrowing by the R.D.C. of £28,750 for erection of houses at Pyle and Sarn.

PENZANCE.—The T.C. has asked the Borough Surveyor to report as to the provision of a new depot.

PETERBOROUGH.—Plans passed by the T.C.: Bungalow, Waterloo-road, for Mr. Barnes; two houses, Rogers-street, for Mr. A. Brown; house, Mayor's-walk, for Mr. Clayson; gallery, Museum, Park-road, for Archæological Society; house, Grange-road, for Mr. Squires; house, Alexandra-road, for Mr. J. Lee; house, Mayor's-walk, for Mr. French; house, Fairfield-road, for Mr. J. E. Hunting; house, Gilpin-street, for Mr. C. Gray.

PLYMOUTH.—Plans passed by the C.B.: Blowey & Roberts, four houses, Lyndhurst-road; E. Hender, two houses, Durban-road; —. White, two houses, Salcombe-road; Pearce Bros., two houses with shops, Stuart-road; A. E. Northcott, house and shop, Bladderley-road; C. G. Allen, bungalow, Bladderley-road; E. F. Lacey, bungalow, Vicarage-road, St. Budeaux; W. H. Howship, bungalow, Compton Park Villas-road; Vicar and Churchwardens, St. Mary's Church, new vestries, St. Mary's Church, Cattedown.

PONTYPRIDD.—The U.D.C. passed plans for a cricket pavilion to be erected, at estimated cost of £500, on the public park by the Pontypridd Cricket Club.

POOLE.—The B.C. passed plans for 80 houses, of which 21 at Hamworthy were for Carter's Pottery Housing Society. In addition, a number of flats proposed for Longfleet High-street.

POTTERSPURY.—Northampton County E.C. is to provide additional accommodation at the school, at a cost of £400.

PRESTON.—It is proposed by the Corporation to extend the Chestnuts Sanatorium, at a cost of £8,500.—Formal sanctions have been received from the M.H. to the borrowing of the sums of £24,000 for the erection of 50 houses in Miller-road.—Tenders are to be obtained for the erection of concrete house on the north side of Ribbleton-avenue.—Plans for eight new houses have been approved.—The parishioners of St. Jude's are proposing the erection of a new parochial hall.

RAMSBOTTOM.—It was resolved by the T.C. that the car shed be extended, and that plans be prepared by the C.S.—The D.C. passed plans: Bury and District Joint Hospital Board, two houses, Holcombe Old-road, Dawes Bank.

READING.—The T.C. passed plans: Four houses, Mr. T. H. Knight, in Clifton Park-road; three houses, Mr F. G. Godwin, in Washington-road; two houses, Mr. W. G. Boxwell, in Kentwood-hill; two houses, J. H. Adams & Son, in Church-road, Tilehurst.

RIMMINGTON.—Improvements are suggested to the Council school, estimated to cost £342.

ROCHDALE.—The Corporation have acquired from the Dunlop Rubber Co. a plot of land in Silk-street for the erection of an electricity sub-station.

ROTHERHAM.—Messrs. J. J. Habershorn & Sons, Ltd., of Holmes Mill, Rotherham, have acquired a site, 30 acres in extent, adjoining their present works, upon which it is proposed to erect new steel rolling workshops.

ROTHWELL.—Plans passed: Electricity sub-station at Church-street, for the Electric Power Co., Ltd.

ROYTON (LANCS).—The U.D.C. passed plans: Asbestos building, for Mr. J. W. Ledger. It was decided to proceed with the erection of another 24 houses at Ooze Wood.

SADDLEWORTH (YORKS.).—A new police station and petty sessions room are to be erected at a cost of about £7,800.

SEDGLEY.—Plans passed: House, Catholic-lane, for Mr. D. Pugh.

SHATTON.—The road leading from Bamford to Hope is being reconditioned, as the estate is being developed for house building purposes by the Messrs. Thorpe's Dairy Farms (Sheffield), Ltd.

SHAW.—The D.C. have instructed their Surveyor to prepare plans and estimates for a number of houses to be erected.

SLAITHWAITE.—The U.D.C. are to invite tenders for the various trades required in the erection of a block of six houses.

SOUTH DUBLIN.—The R.D.C. scheme for the erection of 52 houses at Terenure has been approved by the Local Government Board.

SOUTHPORT.—The M.H. has approved the erection of 100 houses. The tenders for the houses are £357 per house.

SOUTHSEA.—The scheme, which includes the erection of shops, offices, and an arcade, are about to be carried out at the corner of South-street and Montague-street. The cost will be £60,000.

SOWERBY BRIDGE.—Messrs. Hallewell & Shaw are to erect three pairs of houses in Hollinshaw-lane.

STAFFORD.—The T.C. are considering the question of sites for the erection of houses, and they considered the land belonging to the Corporation between the Weston-road and Tixall-road suitable for the purpose. Accommodation could be found on the land for about 53 houses. The committee recommended that, subject to the sanction of the M.H. being obtained, the land, containing about five acres, should be appropriated for the purpose.

STAINFORTH.—A new Wesleyan chapel, to seat 450 persons, is to be erected at an estimated cost of £9,100, from plans by Messrs. Gelder & Kitchen, of Hull.

STALYBRIDGE.—The plans for the erection of four houses on the Stocks-lane site have been approved. The T.C. are seeking a suitable site for the erection of a mortuary. It is proposed to provide a new elementary school at West Hill with accommodation for 400 children.

STANLEY (YORKS).—Plans passed: Pair of bungalows at Robin Hood-hill, Potoven's-lane, Wrenthorpe, for Mr. G. A. Gill, and Mr. R. B. Kershaw.

SUDBURY.—The Wembley Council have passed plans for a new Church of St. Andrew.

SUNDERLAND.—The T.C. has now definitely decided upon the construction of an 80 ft. bridge across the River Wear, and is to advertise for tenders.

SURBITON (near).—The Regent House estate, lying between Surbiton and New Malden, is to be used for building.

TEWKESBURY.—The B.S. has prepared plans for 12 cottages at Priors Ground.

THORNE.—A new secondary school is to be erected.

THRAPSTON.—Northampton E.C. is purchasing a portion of the Thrapston House property for secondary school purposes.

TIPPERARY.—The U.D.C. has been authorised to borrow £5,000 for converting military barracks into workers' houses.

TIVERTON.—A new boarding house is to be erected at Blundell's School, at a cost of about £18,000. The plans have been prepared by Mr. J. P. Dixon.

TORBAY.—The Publicity Committee of the new Torbay Hospital stated that the plans for the new hospital had been received from the architect, and that when considered would be publicly exhibited.

TORQUAY.—The Corporation has prepared a scheme, to cost £8,000, for a bathing pavilion with steps to the beach and a cafe and roof garden on top.

TRENTHAM.—Plans passed: Two houses, Stone-road, for Mr. L. Cartlidge; house, Stone-road, for Mr. C. E. Walker; house, Stone-road, for Mr. Wagstaffe.

TROWBRIDGE.—Plans passed by U.D.C.: Four houses, Bradford-road, for Messrs. E. Linzey & Son; cottage, Shail's-lane, for Mr. Hilton.

TRURO.—In connection with the City Hall scheme the architects, Messrs. Thornley & Rooke, propose to increase the accommodation by about 100 seats. The Territorial Force Association proposes the erection of a drill hall. In connection with the scheme for bridging over the river the Surveyor is preparing a scheme for culverting the river, which he estimated will reduce the cost of the river covering by about £4,000.

UXBRIDGE.—Plans passed by U.D.C.: Two houses, Walford-road, for Mrs. Brown and Mrs. Servant; bungalow, Walford-road, for Mr. G. K. Davis; bungalow, Derby-road, for Mr. H. C. Whittington.

WALLSEND.—The T.C. has approved lay-out plans, prepared by the Borough Surveyor, for dealing with an unhealthy area at Howdon, including the building of houses in flats at respective estimated costs of £286 and £300.

WANSFORD.—The Great North-road is to be improved at a cost of £100,000.

WARSOP.—The U.D.C. has decided to ask the M.H. to give provisional approval for the erection of 70 additional houses.

WEDNESBURY.—The B.C. passed plans: Mr. A. W. Wall, house, Nunsfield-road.—The Surveyor submitted plans for non-parlour type houses proposed to be erected on the Heath-grove site.—It was resolved that tenders be invited for 12 non-parlour type houses in two blocks of four, and two blocks of two, and 13 parlour type houses.

WEST HARTLEPOOL.—The T.C. approved plans: Mr. E. C. Bell, house, Stockton-road; Mr. E. M. Tweddle, 16 cottages, Allendale-street, Seaton Carew.

WESTHOUGHTON.—The U.D.C. are to provide a cover to the market, at a cost of £1,700. Application is to be made to the M.H. for the money.

WESTON-SUPER-MARE.—The Surveyor submitted and explained to the Town Hall and Knightstone Committee of the U.D.C. his plan of the proposed improvement at Knightstone Baths, which was approved. The Clerk was instructed to apply to the M.H. for the necessary loan.

WIMBLEDON.—Sketch plans have been prepared for the completion of the county school for girls. The estimated cost is £15,230. Plans are also under consideration for a caretaker's cottage.

WYKE (BRADFORD).—A new hostel is to be erected for the Salvation Army.

FIRE.

COLNE.—A disastrous fire occurred at the Garden Vale Mill, doing damage to the extent of £50,000.

PRICES CURRENT OF MATERIALS

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000, Delivered at London Goods Stations.

	£ s. d.
Flettons, at King's Cross	2 13 3
Do. grooved for plaster	2 15 3
Do. Bullnose	3 8 3
Best Stourbridge Fire brick:—	
2½ in.	8 11 0
3 in.	10 3 0

GLAZED BRICKS—

	£ s. d.
Best White Ivory, and Salt Glazed Stretchers	23 0 0
Headers	22 10 0
Quoins, Bullnose and 4½ in. Flats	29 10 0
D'ble Str'tch'rs	31 10 0
D'ble Headers	28 10 0
One Side and two Ends	32 10 0
Two Sides and one End	33 10 0
Splays and Squints	31 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. "	2 6	4 in. "	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	13 9	" "
Thames Sand	14 6	" "
Best Washed Sand	14 6	" "
½ in. Shingle for Ferro-Concrete	12 9	" "
¼ in. "	14 0	" "
¼ in. Broken Brick "	11 6	" "
Fan Breeze	7 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6	
£1/- alongside at Vauxhall in 80-ton lots.	
Ferrocrete per ton extra on above	0 10 0
Super Cement (Waterproof)	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	2 11 9
Chalk Lime	2 11 9
Best Ground Blue Lias Lime	2 4 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in sacks 35s. 0d. per ton at rly. dpt.

STONE.

BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube — s. 2, d. 9½

Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube — 2, 11½

PORTLAND STONE—

Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5

White basebed, 3d. per ft. cube extra.

NOTE.—1d. per ft. cube extra for every 20 ft. *average*, and ½d. beyond 30 ft. — cut over

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over "	17/-
Sawn two sides "	27/-
Sawn three or four sides "	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 6
6 in. rubbed two sides, ditto "	6 0
3 in. sawn two sides slabs (random sizes) "	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 6½
1½ in. to 2 in. ditto, ditto "	1 4

HARD YORK—

Delivered at any Goods Station London.

Scappled random blocks Per Ft. Cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 1½
	6 1½
6 in. rubbed two sides ditto "	2 10
4 in. sawn two sides slabs (random sizes) "	2 1½
3 in. ditto. ditto "	2 10
2 in. self-faced random flags Per Yard Super	9 0

ARTIFICIAL STONE.

Delivered in London Area in full van loads, per ft. cube:—Plain, 6s. 6d.; Moulded, 7s. 9d.; Cills, 8s. 3d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
6 × 11	£32 0	3 × 6	£23 0
4 × 9	28 0	3 × 11	28 0
4 × 8	26 0	2 × 11	28 0
4 × 7	25 0	3 × 9	25 0
4 × 4	24 0	2½ × 9	25 0
3 × 3	23 0	3 × 4½	24 0
3 × 7	23 0	3 × 4	24 0
2½ × 7	22 0		

PLANED BOARDS.

1	× 11	£31 0	1 × 9		£30 0

WOOD (*Continued*).

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	21/-	1¼	32/6
⅞	23/-	1½	37/6
1	25/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.	Inches	per sq.
1	25/-	¾	16/6
1¼	32/6	⅞	20/-
1½	37/6	1	25/-

BATTENS

Inches	s. d.
1 × 2	2 6 per 100 ft.

SAWN LATHS.

Per bundle	0 2 6
Dry Wainscot Oak, per ft. super, as inch	0 2 0 to 0 2 6
½ in. do. do.	0 1 6 to 0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9 to 0 2 6
Cuba Mahogany	0 3 0 to 0 3 6
Teak (Rangoon, Moulmein or Java), per ft. cube	0 14 0 to —
American Whitewood planks, per ft. cube	0 12 0 to 0 14 0
Best Scotch Glue, per cwt.	4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 12 6
Ditto hand made ditto	5 17 6
Ornamental ditto	6 2 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
" Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	16 10 0	⅝ in. to ¾ in.	13 10 0
⅜ in.	14 10 0	⅞ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lots of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes. All sizes.	Fittings. ½"&up. inclusive.	Fittings. ¼"to¾" inclusive.	Flanges ½"&up. inclusive	Flanges ¼"to¾" inclusive
Black Gas	50 %	50 %	47½ %	60 %	57½ %
Blue Water	45 %	45 %	42½ %	55 %	52½ %
Red Steam	40 %	40 %	37½ %	50 %	47½ %
Galv'd Gas	35 %	40 %	37½ %	50 %	47½ %
" Water	28½ %	35 %	32½ %	45 %	42½ %
" Steam	22½ %	30 %	27½ %	40 %	37½ %

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends stock angles.	Branches stock angles.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. "	6 3	6 8	11 4
5 in. "	7 6	11 6	18 2
6 in. "	8 10	14 4	23 5

IRON—	Per ton in London £ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 10 0	—	15 10 0
Staffordshire "Marked Bars"	17 0 0	—	18 0 0
Mild Steel Bars	12 0 0	—	13 0 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	12 10 0	..	13 10 0
Hoop Iron, basis price	16 10 0	..	17 10 0
" Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—Ordinary sizes to 20 g.	14 10 0	..	15 10 0
" " 24 g.	15 10 0	..	16 10 0
" " 26 g.	17 10 0	..	18 10 0

Sheets Flat Best Soft Steel, C.R. & C.A. quality—

Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 0 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10 0

Flat and Galvanised Corrugated Sheets—

Ordinary sizes, 6 ft. to 9 ft. to 20 g.	20 10 0	..	21 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 0 0	..	22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 0 0	..	24 0 0

Sheets Galvanised Flat, Best quality—

Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	22 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	52 10 0
Pipe in coils	53 0 0
Soil Pipe	56 0 0
Compo pipe	59 0 0

NOTE—Country delivery, 30s. per ton extra; lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	39 0 0	..	—
Do., ex country, carriage forward per ton	0 0 0	..	—

COPPER.

		s. d.
Seamless Copper tubes (basis)	per lb.	1 1½
Strong sheet	"	2 3
Thin "	"	2 4
Copper nails	"	2 3
Copper wire	"	2 4

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN PUB COCKS FOR IRON.

¾ in.	⅞ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

¾ in.	⅞ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

¾ in.	⅞ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

¾ in.	⅞ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F

¾ in.	⅞ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- "

TIN—English Ingots, 2/7 per lb. SOLDER—Plumbers' 1/3, Tinmen's 1/5, Blowpipe 1/6 per lb.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil, in pipes	per gallon	0 4 4
" " " in barrels	"	0 4 6
" " " in drums	"	0 4 9
Boiled " " in barrels	"	0 4 9
" " " in drums	"	0 5 0
Turpentine in barrels	"	0 5 9
" in drums (10 gall.)	"	0 6 0
Genuine Ground English White Lead, (In not less than 5 cwt. casks.)	per ton	63 5 0

GENUINE WHITE LEAD PAINT—

"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 85 10 0

Red Lead, Dry (packages extra)	per ton	58 0 0
Best Linseed Oil Putty	per cwt.	0 15 0
Filocol	per cwt.	0 15 6
Size, XD Quality	ffkn	0 3 6

[*Continued on next page.*]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
15 oz. fourths ..	3½d.	32 oz. fourths	8½d.
15 „ thirds	4½d.	32 „ thirds .....10½d.	
21 „ fourths ..	5d.	Obscured Sheet, 15 oz.	4d.
21 „ thirds	6½d.	„ 21 „	5½d.
26 „ fourths ..	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
26 „ thirds	7½d.	En'lied 15oz. 5½d., 21 oz	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white..	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 10 0
Best Black Japan		0 10 6
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 7 6
Berlin Black		0 14 6
Knotting (patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

DIARIES & CALENDARS

The Association of Architects', Surveyors' and Technical Association (formerly the Architects', and Surveyors' Assistants' Professional Union) has again issued its useful pocket diary, the 1925 edition having been thoroughly revised and added to. In spite of the large amount of information and memoranda of everyday use to all concerned with building it contains, the diary is of handy size for the pocket, and owing to the thin yet strong paper used its 100 odd pages do not make it bulky. Technical data is given on all the building trades, full particulars of all the professional societies in the architectural and surveying professions are included, there is postal and other information usually given in diaries, and a diary for the year 1925, with one opening per week. Copies may be obtained from the Secretary of the Association, 26, Buckingham Gate, S.W.1, price 2s. 6d.

A wall calendar which will give pleasure to the eye every time it is used throughout the year, has been issued by Messrs. Hibberd Bros., Ltd., joinery manufacturers, of 146, Vauxhall-walk, S.E. 11. A small and neat calendar with one sheet to a month is surmounted by a well-printed reproduction in colour of "In the Land that Heals the Heart Aches," a scene in Western America, by Edwin Lamasure.

The blotting pad we have received from Messrs. W. W. Sprague & Co., Ltd., Bread-street Hill, E.C. 4, answers all that a blotting pad can be expected to answer—and that is efficiency.

We have also received useful calendars for 1925 from Messrs. Ferodo, Ltd., Derbyshire; Messrs. Joseph Westwood & Co., Millwall; Messrs. Archibald D. Dawnay & Sons, Ltd., Battersea; and Mr. R. G. Spiller, Taunton.

We have received from Messrs. Hoyle, Robson, Barrett & Co., Ltd., Paint Manufacturers, in association with John Smith & Son (Haltwhistle), Ltd., varnish manufacturers, Newcastle-on-Tyne, a practical, workmanlike diary for 1925. It contains an Insurance Coupon for £2,000.

From Messrs. The Ironite Co., Ltd., Westminster, S.W.1, and Messrs. E. B. Holmes & Co., Ltd., Hackney, E.8, we have received useful calendars.

THE SCOTTISH BUILDER

GLASGOW STEEL HOUSES

At a recent meeting of the Glasgow Corporation it was reported that the Housing Committee, after interviewing a deputation of the National Building Trade Operatives, recommended to the Corporation that a condition of the contract with Lord Weir's firm should be that all operatives engaged on the work involved should be paid building trade wages, and that building trade rules and regulations should be applied throughout. In a letter to the Corporation, Messrs. Weir wrote that the committee's resolution could only have been adopted under an entire misapprehension. No ordinary building work was involved in the erection of houses of the Weir type, operations having been so simplified and specialised that the work could not be included under the ordinary meaning of building work. In these circumstances, building trade rules and regulations were inapplicable, and the firm found themselves unable to accept them. It was not the firm's intention to employ building trade labour, which was already unable to cope with existing demands, but to draw from the existing unemployed, giving craftsmen preference.

The firm, it was stated, intended to pay by results, and wages and conditions complied with the conditions of the Fair Wages Clauses.

The Corporation remitted the entire subject to the committee for further consideration and consultation between the parties concerned.

The Committee of the Scottish Building Contractors' Association met in Edinburgh recently and considered the attitude of the trade towards steel houses. In the course of a statement of the proceedings the members of the Association, it was stated, were satisfied that the needs of the public, and especially of the working class, were not being, and were not likely to be, met quickly enough by the methods adopted by the Government and the local authorities, and they, as building trade employers and citizens, welcomed any alternative scheme, either emergency or otherwise, likely to reduce the shortage of houses, and, incidentally, lessen unemployment.

On the merits of the steel house the Association did not pass any opinion. They believed that the steel house should get every consideration in the way of experiment and actual test by the various local authorities. The Association would like to make it clear to the public and all concerned that there was no pact between the employers and operatives, as had been suggested. It was not believed by the employers that the operatives would willingly hold up the erection of houses, emergency or otherwise, except for a matter of principle in which they themselves believed they were justified. The Association felt sure that the steel house were an alternative only, and not in any sense competitive with the ordinary trade of the builder.

NEW BUILDINGS IN SCOTLAND

Glasgow.—HOUSES.—Plans passed by the Dean of Guild Court: Bungalow, at Fernleigh-road, Newlands, for Miss M. K. Fulton, Charlton, per J. A. Laird; house, Newlands-road, for Wm. F. Martin, Junr., per Thos. Baird; 30 terrace houses, Albert-road, Skirving-street and Walton-street, for Jas. Wright, per Gardner & Glen; warehouse and offices, Clarence-drive and Crow-road, for Wylie & Lochhead, Ltd., per John Burnet, Son & Dick; houses, London-road, for Corporation Housing Dept.

Prestwick.—HOUSES.—The Dean of Guild Court passed plans: Six houses, in Berelands-road, at a cost of £4,000, for R. S. Govan; house, in Monkton-road, at a cost of £2,200, for Mrs. E. Meikle Cosh; 10 houses in Crandleyhill-road, at a cost of £8,000, for John Wylie; two houses, Waterloo-road, at a cost of £1,600, for R. M'Whirter; 11 houses, corner of Ayr-road and Mansefield-road, at a cost of £10,500, for James and Thomas M'Whirter.

Cupar.—HOUSES.—A committee has been appointed in connection with the T.C. to consider the possibilities of providing houses at the west end of Cupar.

Dunfermline.—VILLAGE HALL.—A new concert hall is to be provided for the town by the Carnegie Dunfermline Trust.—Messrs. James Stewart & Sons have secured the contract for the mason work of the War Memorial.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Plasterers' Masons'
Aberdeen	1/8	1/8½	1/8	1/8	1/8	1/8	1/7	1/0½	
Airdrie	1/8	1/8	1/8	1/8	1/8	—	1/6½	1/3	
Alexandria	1/8	1/8	1/8	1/8	1/8	1/8	—	1/2½ to 1/3½	
Arbroath	1/7	1/7	1/7	1/7½	1/7	1/7	1/5½	1/1½	
Ayr	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	
Bathgate	1/8	1/8	1/8	1/8½	1/8	1/8	1/6½	1/2 to 1/3	
Blairgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/-	
Bo'ness	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3	
Coatbridge	1/8	1/8	1/8	1/8	1/8	—	1/6½	1/3 to 1/3½	
Dumbarton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½	
Dumfries	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2	
Dundee	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3	
Dunfermline	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3½	
Edinburgh	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½	
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2	
Galashiels	1/6½	1/5½	1/6½	1/6½	1/6½	1/6½	1/6	1/2	
Glasgow	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½	
Greenock	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/0½ to 1/3½	
Hamilton	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½	
Hawick	1/6	1/6	1/6	1/6–1/6½	1/6	1/6	1/6	1/2	
Helensburgh	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½	
Inverness	1/5	—	1/5	1/4	1/5	1/5	1/4	1/- to 1/2	
Kilmarnock	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½	
Kirkcaldy	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3½	
Kirkwall	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/	
Lanark	1/8	1/8	1/8	1/9	1/8	1/8	1/6	1/- to 1/3	
Leith	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½	
Motherwell	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½	
Perth	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3	
Stirling	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3½	
Stirlingshire (Eastern District)	1/8-1/10	1/8-1/10	1/8	1/9	1/7	1/8	1/6½	1/3½	
Wishaw	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 166.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	32	0
Add if in underpinning in short lengths	" "	7	0
Add if in floors 6 in. thick	" "	3	3
Add if in beams	" "	3	9
Add if aggregate 1 . 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	10	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	8	6
½ inch on flats in two thicknesses	" "	6	3
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	2

MASON.

York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	20	0

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	0
Do. joists	" "	5	6
Do roofs, floors and partitions	" "	6	0
Do. trusses	" "	8	6

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	35/6	40/-	45/-	72/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		44/6	53/-	60/6
Do. tongued and grooved	"		49/-	57/6	65/-
Do. matchings	"	45/-	51/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	"	3	9

DOORS.

		1¼"	1½"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	9

		1"	1½"	1¼"
Plain deal jamb linings framed	per ft. sup	1/7	1/8	1/11
Deal shelves and bearers	"	1/4	1/6	1/9
Add if cross tongued	"	2d.	2d.	2d

STAIRCASES.

		1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets		2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed		1/8	2/	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	"	19	0
Do. stanchions	"	21	9
In roof work	"	27	6

RAIN-WATER GOODS.

			3"	4"	5"	6"
Half-round plain rebated joints	ft. run		1/6	1/9	2/-	2/6
Ogee Do. Do.	"		1/9	2/-	2 6	3/3
Rain-water pipes with ears	"		1/9	2/7		
Extra for shoes and bends	each		4/4	5/11		
Do. stopped ends	"		1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"		2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	68	0
Do. Do. in flats	"	67	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/2	1/9	2/0	3/4	4/0	
Do. service	"	1/8	2/2	2/7	3/10		
Do. soil	"						6/9
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws					14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	7/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	1	4
Do. Do. Sirapite	" "	2	7
Do. Do. Keen's	" "	3	7
Add sawn lathing	" "	1	7
Add metal lathing	" "	1	6
Portland cement screed	" "	1	11
Do. plain face	" "	3	3
Mouldings in plaster	per 1 girth	0	11
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	8
26 oz. Do.	" "	1	0
Obscured sheet	" "	1	1
¼ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	10½
¼ in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do 2 coats	" "	1	2
Do 3 coats	" "	1	9
Do 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup	0	6
French polishing	"	1	2
Preparing for and hanging paper	per piece 2/- to 4/		

* These prices apply to new buildings only. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 11 should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

NEW COMPANIES

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 119, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

ARTHUR SIMS, LTD. (201,217). Registered October 24. 22, High-road, Kilburn, N.W.6. Builders' materials. Nominal capital, £4,000.

GILBERT LONG (BUILDERS), LTD. (201,273). Registered October 25. Builders and building contractors, builders' merchants, &c. Nominal capital, £2,000.

"OMEGA" HOUSING CO., LTD. (201,242). Registered October 24. 31, Bedford-row, W.C.1. Builders, contractors, engineers, &c. Nominal capital, £2,000.

S. T. REES & CO., LTD. (201,067). Registered October 17. Builders and contractors. Nominal capital, £4,000.

PHŒNIX BLOCKS, LTD. (201,047). Registered October 18. Concrete slabs and blocks. Nominal capital, £2,000.

F. SHEPHERD & SON, LTD. (201,860). Registered November 21. Builder and general contractor. Nominal capital, £10,000.

GEORGE HUNNABLE, LTD. (201,863). Registered November 21. Builders and contractors, &c. Nominal capital, £500.

J. M. BARTON, LTD. (201,830). Registered November 20. Brighouse-street, Pendleton, Salford. Builders and contractors. Nominal capital, £3,000.

HARPER & SON, LTD. (201,810). Registered November 19. 2, Hartford-place, Coventry. Decorators, painters, paperhangers, plumbers, glaziers and building contractors. Nominal capital, £1,250.

SAMUEL JOHNSON & SON (MIRFIELD), LTD. (201,940). Registered November 24. Builders and contractors. Nominal capital, £15,000.

NUKARLOID COMPANY, LTD. (201,919). Registered November 24. 107, London-road, Plaistow, E.13. Painters of wooden, textile, metal, or any other surfaces. Nominal capital, £1,000.

GELDER, BROS. & WOODCOCK, LTD. (201,944). Registered November 25. 1, Holmes Chambers, Market-place, Pontefract. Builders, joiners, &c. Nominal capital, £8,000.

HENRY HEMMINGS, LTD. (202,127). Registered December 2. 9, Nutfield-road, Thornton Heath, Surrey. Public works contractor and builder. Nominal capital, £10,000.

CHESHAM PROPERTY CO., LTD. (202,062). Registered November 29. 39, Chesham-street, S.W.1. Builders and decorators, &c. Nominal capital, £1,400.

CLEGG BROTHERS (BURNLEY), LTD. (202,085). Registered December 1. Albion Mills, Cooper-street, Burnley. Builders, contractors, &c. Nominal capital, £3,000.

PEARSON, LTD. (202,066). Registered November 29. 51, Broad-street, Bristol. Paint, oil and colour and varnish merchants, and builders' merchants. Nominal capital, £1,000.

F. KIRKHAM, LTD. (202,086). Registered December 1. 32, Hastings-street, W.C.1. Architects and surveyors, builders and contractors. Nominal capital, £100.

PROMARBLE, LTD. (202,059). Registered November 29. West Heath Works, Mill-lane, West Hampstead, N.W.6. Manufacturing marble or an imitation of marble in sheets, tiles and mouldings. Nominal capital, £750.

WOODTHORPE JOINERY AND MOULDING CO. (1924), LTD. (202,463). Registered December 16. Builders and contractors. Nominal capital, £2,000.

PETER HARLE (SUNDERLAND), LTD. (202,466). Registered December 16. Plasterers, builders' merchants and contractors. Nominal capital, £20,000.

CITY AND WEST END DECORATING CO., LTD. (202,346). Registered December 11. Joinery, moulding and woodwork, general carpenters, builders, decorators. Nominal capital, £500.

JOHN HALL & SON (ROWSLEY), LTD. (202,300). Registered December 10. Quarry masters and stone merchants. Nominal capital, £12,000.

TRADE NEWS

We have received from Messrs. Alfred Goslett & Co., Ltd., 127-131, Charing Cross-road, a copy of their latest 1924-5 catalogue. It is well illustrated and enables one at a glance to get a practical idea of the quality of Messrs. Goslett's products. The illustrations, in fact, are nearly all photographs of the actual articles in their showrooms; if improvements or small variations are made, they substitute the newer article. We would suggest that all who are interested in the latest development, combined with economic prices, of baths, ranges, stoves, and plate glass, &c., should apply for a copy of this excellently produced catalogue. Additional loose sheets or sections can be supplied.

Shepherd's *N.E.W.S.* for January contains a series of brief articles and pithy comments which are up to the standard we have come to expect from this enterprising publication. A symposium of opinions is given on road corrugations—causes and remedies; and on another page some interesting details regarding John Rennie, the designer of Waterloo Bridge. A double page illustration taken in a busy market town shows wood blocks being replaced by Messrs. Shepherd's 4 in. Asphaltic Slag over an area of 5,040 yards super. The new material was laid direct on the existing concrete foundations.

Now that the exploits of "Raffles," as immortalised by Mr. Hornung, have left the realms of fiction and entered the world of fact, it is interesting to note that there is a simple way of rendering attic windows and skylights burglar proof. This is to glaze with a wired glass which is manufactured in this country. The wire netting is of a fine mesh, and is fused into the middle of the glass, making it difficult to cut through. By using this glass the housebreaker is checked at the one point where he can least afford to meet with delay. Once he is inside the house and out of sight from the passing policeman, he can take his time in dealing with locked doors and safes, but every moment spent in full view on the roof is a moment nearer Wormwood Scrubbs. It seems only too probable that the "cat burglar" has come to stay, and we foresee a time when no house or office building will be complete unless it has been proofed against the up-to-date housebreaker by some such material as wired glass in its upper windows and skylights. Besides protecting a home against the assaults of gymnastic cracksmen, wired glass has the advantage of being fire-resisting.

Messrs. J. Sagar & Co., Ltd., manufacturers of woodworking machinery, have removed to 119–121, Finsbury-pavement, London, E.C.2. Tel.: Clerkenwell 4634.

We have received from Messrs. S. C. Johnson & Son, Ltd., West Drayton, Middlesex, a booklet descriptive of the proper treatment for floors, woodwork and furniture. In a foreword they state it is founded on 50 years' experience and that the recommendations are identical with their complete specifications contained in Sweet's "Architectural Catalogue," but less technical. The chapters on finishing new woodwork, refinishing old woodwork, and the treatment of new and old floors, &c., ought not to be missed by those who wish to be in a position to talk intelligently to painting contractors about wood finishing. There are separate chapters, equally interesting, on Johnson's liquid polishing wax, wood dyes, paste wood fillers, Perfectone undercoats, and varnishes. They will be pleased to send copies of this booklet to any of our readers.

With reference to our note regarding Messrs. Edward Le Bas & Co., the firm inform us they are continuing their firm of Edward Le Bas & Co., iron, steel, and metal merchants, but have transferred the tube department to a limited company, which will be called "Le Bas Tube Co., Ltd.," and the registered offices will be at Dock House, Billiter-street, E.C.3. Their business as iron, steel, and metal merchants will continue as before.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

ABERCARN.—For making-up and widening of the Kendon-road, for the U.D.C.:—
*J. H. Monks, Newport (Mon) £10,809 9 9

BALLYMENA.—For facing stone for the new town hall, for the U.D.C.:—
*Purdy & Millard £7,040

BARNES.—Erection of keeper's cottage, East Sheen Common, for U.D.C.:—
*W. H. Pecover £1,196 3

BARNSLEY.—Erection of houses on various sites, for T.C.:—
‡C. W. Potter & Son—
50 houses ..... each £420
‡F. Beaumont—
50 houses ..... „ 420

BIRKENHEAD.—Erection of 111 non-parlour houses, for T.C.:—
*Selwood, Lloyd & Co., Birkenhead £52,253 5

BIRKENHEAD.—Construction of sewer in Borough-road, for T.C.:—
*C. V. Buchan & Co., Ltd., Brighton.. £25,361

BLYTH AND CUCKNEY.—For erection of a sewage disposal works, for the R.D.C. Mr. A. H. Styring, Clerk, 6, North Church-street, Sheffield:—

H. Ashley, Mansfield	£29,092	2	6
T. Roper & Sons, Ltd., Sheffield	21,934	18	6
H. Arnold & Sons, Ltd., Doncaster	21,866	8	6
Swift Bros., & Haslam, Ltd., Doncaster	21,690	0	0
A. Graham, Sons & Co., Huddersfield	21,663	0	0
A. Waterman, Leeds	21,400	0	0
‡Lane Bros., Mansfield	20,999	18	6

BOSTON.—For erection of 22 houses, for the T.C., upon a site off Woodville-road:—

*H. H. Vamplew—7 pairs	per pair	£1,081	13
*W. Greenfield—2 pairs	„	1,081	0
*J. J. Roberts—2 pairs	„	1,067	1

CHESTERFIELD.—Laying sewers incidental to the construction of new sewage disposal works, for T.C.:—
*J. Bentley & Co. £7,880 8

COCKERTON.—For erection of a new council school, for the Darlington E.C.:—
*G. Dougill.

CUDWORTH.—For erection of 36 houses on the Sidcup housing estate, for the U.D.C. Mr. J. A. Haigh, Engineer and Surveyor, Council Offices:—
*A. Garbutt, Cudworth—
Houses £16,200
Roads and sewers 900

DEWSBURY.—For erection of a new pavilion at Whitley Hospital, for the C.B.:—

Mason—			
*Garforth & Co.	£3,215	12	10
Joiners—			
*S. Armitage & Sons.....	882	0	0
Plumbers—			
*J. A. Schorah	870	0	0
Slater—			
*T. Brear & Son	560	0	0
Plasterer—			
*G. Naylor & Son	153	13	6
Painter—			
*J. A. Schorah	123	0	0

DEWSBURY.—For construction of 14 percolating filters and humus tanks, at Mitchell Laithes, for the C.C.:—
*Wellerman Bros., Ltd. £68,189 14 6
(Subject to M.H. approval.)

DEWSBURY.—For plumber's work on the Wakefield-road housing site, for the C.B.:—
*J. Shepley £3,683 3 4

DROITWICH.—For erection of 12 houses on the Woodfields site, for the T.C.:—
*Brazier Bros.] £5,861

DROITWICH.—For alterations and improvements in connection with the Brine Baths scheme at the Infirmary, for the Board of Guardians:—
*A. E. Small..... £1,840

GILDERSOME.—For the erection of 10 houses, for the U.D.C.:—
*The Tuberculosis Ex-Servicemen's Society, Ltd., Leeds £4,531 13

GLASGOW.—Construction of a new road on the shore of Loch Katrine, for T.C.:—
‡Casey & Darragh £15,751

GOLDTHORPE.—For erection of 74 houses in Barnborough-lane, for the Bolton-upon-Dearne U.D.C. Mr. W. H. Adams, Architect, Council Offices; quantities by architect:—
*E. E. Dickinson, Bolton-upon-Dearne £35,545 15 4

HASLINGDEN.—For erection of 32 houses on the Syke Side estate, for the T.C.:—
*T. Brown, Ltd., Haslingden.

KIVETON PARK.—For erection of 28 houses for the R.D.C. Mr. A. L. Lewis, Clerk, Council Offices :—
*I. H. & W. E. Ilett, Worksop .. £13,890

LEITRIM.—For repairs to Manorhamilton Court-house, for the C.C. :—
*F. Prior, Ballinamore £412

LIVERPOOL.—For erection of a new story of the Municipal Buildings, for the T.C. :—
‡Morrison & Sons, Ltd., Wavertree.. £28,938
(Subject to M.H. approval.)

LONDON.—For erection of an infants' welfare centre at Arnott-road, Peckham, S.E. Mr. F. Nash, architect and surveyor, 6, New-square, Lincoln's Inn :—
Geo. Parker & Sons, Peckham..... £1,742
McColloch Bros., Dulwich..... 1,620
Mitchell & Son, Dulwich 1,575
Webster & Son, Dulwich 1,474

LOUTH.—For building works at Ardee Hospital, for the Board of Health :—
Building—
*P. Delaney, Navan £1,820
Plumbing—
*P. Coldrick, Navan 263

MANCHESTER.—For construction of transit sheds at Trafford Wharf, for the Manchester Ship Canal Co. :—
*B. Morton & Co., Ltd. £300,000

MANCHESTER.—For the construction of the Duke of Sussex Bridge, for the G.C.R. Co., Ltd. :—
*H. Arnold & Sons, Ltd., Doncaster.

MARCH.—For erection of houses, for the U.D.C. :—

H. G. Papworth, 28 houses	£11,477	10	
F. W. Shanks, 28 houses	11,474	0	
*J. Eggitt & Sons, 28 houses	11,111	0	
J. W. Clark, 28 houses	11,310	0	
T. W. Dack & Co. :			
16 houses	6,307	17	
4 houses	1,615	17	
T. Whittlesey, 16 houses	6,600	0	
L. Wilkinson, 12 houses	4,531	0	

(Subject to M.H. approval.)

PENZANCE.—Repairs to public lavatories, for T.C. :—
*J. H. Nicholls..... £126

PORTSMOUTH.—Erection of stores, tea house, &c., on Southsea Common, for T.C. :—
Frank Bevis, Ltd. £9,000
Samuel Salter 8,236
‡Jno. Croad 8,100

SCARBOROUGH.—For various trades in connection with the public lavatories and shops adjoining the café at Peasholm Gap, and public shelters and lavatories at North Bay Promenade, for the C.B. Mr. H. W. Smith, Borough Engineer :—
Extensions to Corner Café, Peasholm—
*F. W. Plaxton, Scarborough.
Public lavatories and shelter adjoining Corner Café—
*E. Hunter, Scarborough.
Public shelter and lavatories, North Promenade—
*F. W. Plaxton, Scarborough.

SELBY.—Construction of bridge across the canal, for West Riding C.C. :—
*Yorkshire Hennebique Contracting Co., Ltd. £21,860 8 11

SHREWSBURY.—For alterations and extensions to the Eye, Ear and Throat Hospital. Mr. A. E. Williams, architect and surveyor, County Chambers, 12, High-street :—

Cowlin & Son, Bristol	£12,434
H. Willcock & Co., Wolverhampton ..	11,495
G. H. Bickerton & Son, Shrewsbury	11,478
Bowers & Co., Hereford	11,475
Henry Price & Son, Shrewsbury....	11,400
E. H. Nicholas, Shrewsbury	10,998
A. H. Woodhouse, Hanwood, Shrewsbury	10,994
Nicholls, Ltd., Gloucester	10,894
*Treasure & Son, Shrewsbury	10,788

SWALLOWFIELD.—For erection of a new Council school at Farley-hill, for the Berkshire C.C. Mr. W. C. F. Anderson, Education Secretary, Shire Hall, Reading :—

J. B. Seward & Co., Wokingham	£3,109	14	10
D. Love & Son, Mortimer	3,067	13	6
F. V. Holder, Shinfield	3,065	14	6
E. F. Blow, Bracknell	2,830	3	9
Walden & Co., Swallowfield ..	2,794	5	10
W. O. Porter, Ware, Herts	2,757	15	9
E. Carter & Sons, Pangbourne..	2,750	0	0
Brasher & Sons, Wallingford ..	2,724	11	9
Boshers (Cholsey), Ltd., Cholsey	2,721	16	6
Canning & Sargeant, Wokingham	2,562	8	0
‡Froud & Barrett, Wokingham	2,508	10	0

STOKE NEWINGTON.—For rebuilding the "Red Lion" public-house, Church-street, Stoke Newington, for Messrs. Truman, Hanbury, Buxton & Co., Ltd. Mr. A. E. Sewell, M.S.A., Architect to the Company. Quantities by Mr. W. Gilbert, M.S.A., Broad-street-avenue, E.C. :—

Courtney & Fairbairn	£12,993
Shewin Bros.	12,897
Perry & Co.	12,666
Caterall & Sons	12,546
Fairhead & Sons	12,147
Knight & Son	11,821
*H. V. Clogg	11,477

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